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Lasting



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No cloisters of forgotten heroes are Mathieson's plant laboratories. Manned by solid citizens like capable "Doug" Shannon, Saltville chemist pictured here, these "labs" have played an important part in Mathieson's past record of achievement. And for the future, men like Shannon are an assurance that Mathieson Chemicals will continue to offer as great or greater value than they do today. The Mathieson Alkali Works (Inc.), 60 East 42nd Street, New York, N. Y.



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**YESTERDAY:**  
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**MORE FOR YOUR MONEY WITH MODERN WASHING MACHINES**

**TODAY:**  
*Just a turn of the switch*

**...and you get more  
for your money today  
with the modern roll  
covering—CORK**

**W**HEN a product offers "more for the money," it meets with quick success. The fact that 12,000,000 homes have electric washing machines proves that this modern automatic equipment offers more for the money in cleaner, more efficient laundering and in saving time and energy. And 6,000,000 active spindles running on Armstrong's Cork Cots furnish proof that this modern roll covering offers more for your money in stronger, more uniform yarn produced at lower cost.

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Armstrong's Cork Cots help you spin stronger, more uniform yarn because they are a uniform fabricated product. Cork, ideally suited by nature for a roll covering mate-



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Armstrong's Cork Cots insure better running work. They help eliminate eyebrowing. They reduce end breakage, cause fewer top roll laps and less clearer waste. And

Find out now how your mill can benefit by a change-over to the modern roll covering—Armstrong's Cork Cots. Let the Armstrong salesman show you production figures of mills spinning your range of numbers. Or write to Armstrong Cork Company, Industrial Div., Textile Products Section, Lancaster, Pennsylvania.

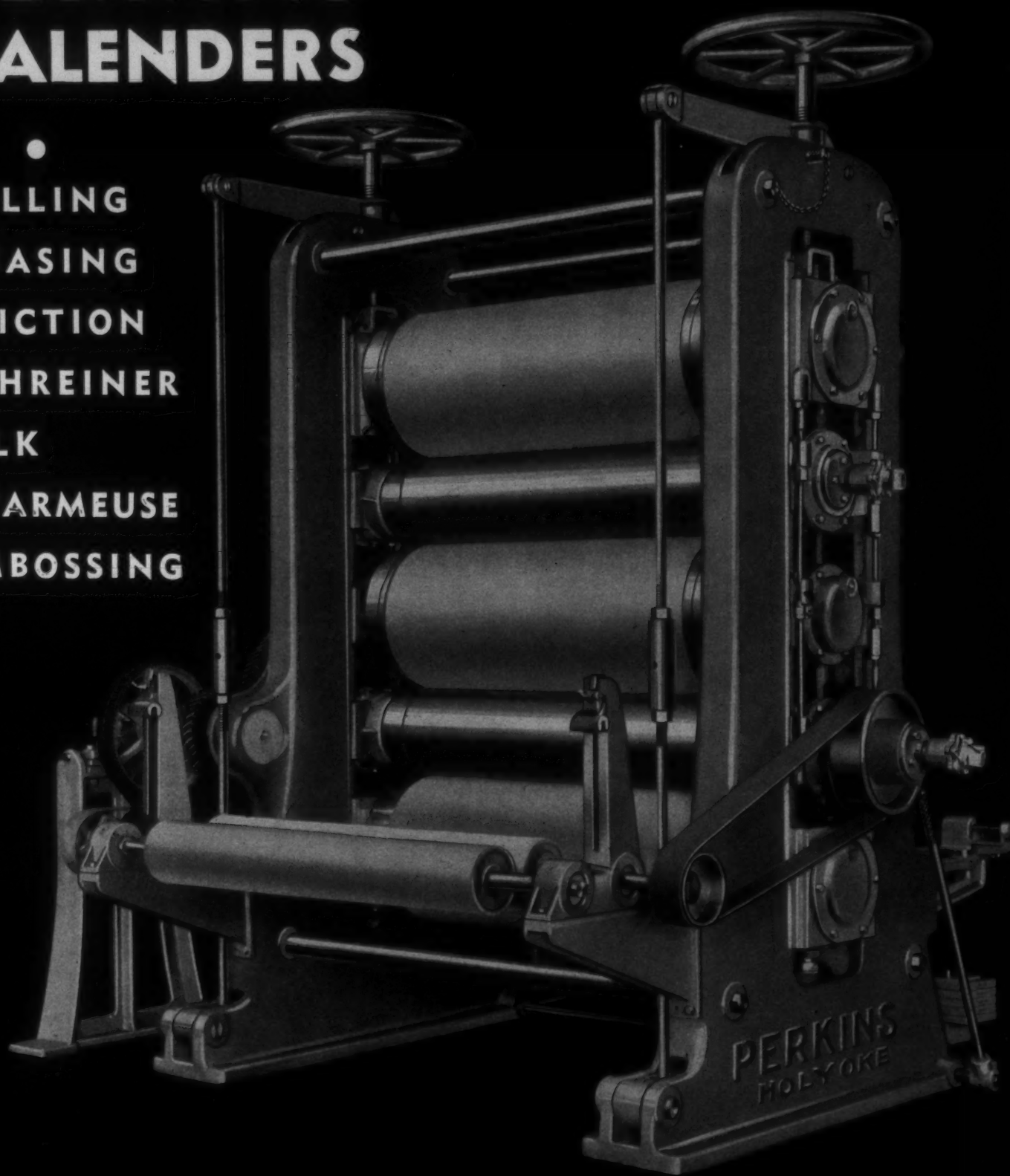


**ARMSTRONG'S Extra Cushion SEAMLESS CORK COTS**

**CORK PRODUCTS SINCE 1860**

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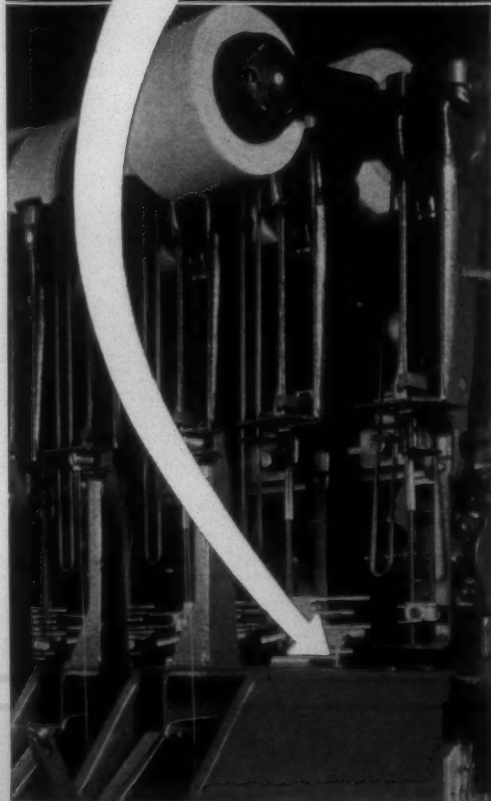
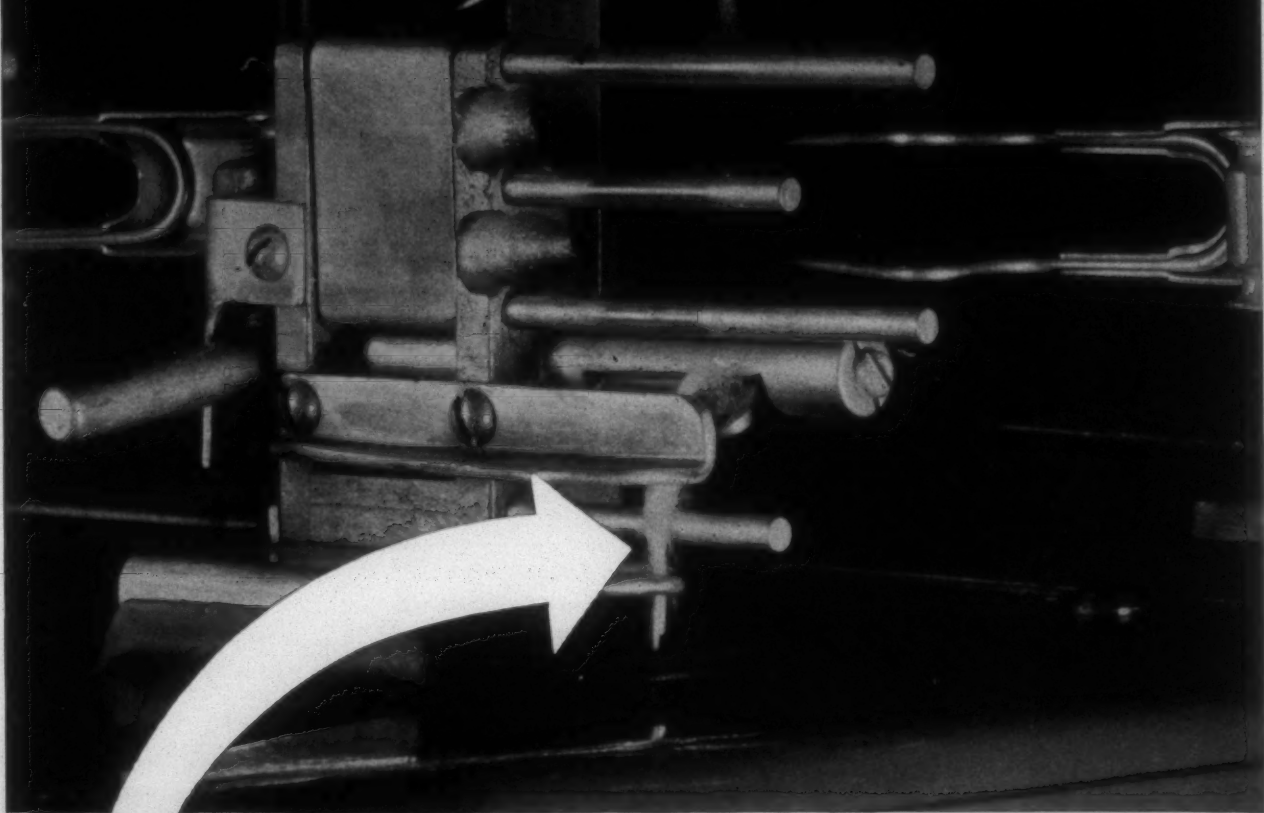
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ROLLING  
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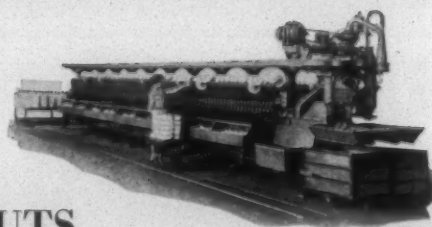
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Approved merchandise embrace style, design, color, wear and quality. Fabrics must pass tests in the laboratory for construction, finish, shrinkage, slippage, wear and general quality. They must pass critical inspection as to style, design and color for the use to which they are put • And likewise, the garments made of Enka Fashion Approved Rayon fabrics must measure up to certain standards of workmanship and critical judgment of style in all its phases—suitability of fabric and garment style, silhouette, cut, trim, color and timeliness. Enka promotion is based on Enka Fashion Approved fabrics and merchandise, selected with a view to its appropriateness to the fashion prestige of the Enka advertising program. It has nothing to do with yarn sales or cooperation to sell merchandise. It is entirely designed to provide a foundation, a background and a setting for Enka Fashion Approved Rayon—and any creator of fine fabrics or clothes can take advantage of it and profit by this policy.

From Best & Co.  
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THE FASHION APPROVED RAYON OF QUALITY MERCHANDISE

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*A*N upward sales swing in many lines of business brings increased demands on working capital.

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*55 Madison Avenue, New York*

*Affiliated with Commercial Credit Company, Baltimore • Capital and Surplus Over \$65,000,000*

*NEW ENGLAND REPRESENTATIVE: EDMUND H. LELAND, CHAMBER OF COMMERCE BUILDING, BOSTON, MASS.*



# GREETINGS!



**A**S WE approach the close of a year that has perhaps lived up to what many expected of it—that has contained periods of optimism and of promise, as well as times of perplexity and disappointment—we grasp this opportunity of extending to friends and customers our very best wishes for a pleasant Holiday Season, filled with happy gatherings, replete with good cheer, and blessed with the kindly spirit of Christmas Day.

For the year that is past, and the years that have preceded it, we express our sincere gratitude and thanks to the textile trade for the business with which we have been favored and for the confidence which they have placed in us. May we merit a continuance of both.

For the New Year that approaches we wish for everyone all the success, and as many of the good things of life as he is entitled to gather unto himself, honestly, and "within the spirit of the Constitution"

## WHITIN MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS

Charlotte, N. C.

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HERE AT LAST...

# Controlled

LUBRICATION



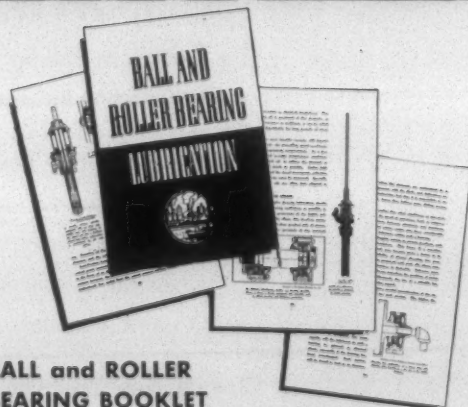
TO KEEP BALL AND ROLLER BEARINGS performing as they should, *controlled* lubrication is necessary. This results from the use of Texaco Starfak.

Texaco Starfak is stable—doesn't break down, separate, or leak out; it stays in the bearing, effectively sealing it against foreign matter.

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# TEXACO Starfak Grease

FOR SMALL HIGH-SPEED BALL AND ROLLER BEARINGS





## Merchandising of Spun Rayon Fabrics

By Dr. S. J. Kennedy

Director of Market Research, Pacific Mills

New York City

COMPETITION has in the past been almost universally regarded in the public mind from the standpoint of competition between one enterprise and another, each of them producers of identical or closely related products sold for the same use. The concept of competition has, however, been undergoing important mutations in recent years. While it would be difficult to say what the most widely held concept of competition is today, certainly one of the most important is that of competition between different and frequently unrelated products, not sold side by side on the same counter and frequently not even sold in the same store. That is, competition between different products for the consumer's dollar. It is one of the most real forms of competition that we have.

In the textile industries, competition of this kind has developed to a level which has a parallel in few other American industries. It is the kind of competition to which we refer when we speak of "inter-fiber competition."

As recently as the close of the War there was a sort of equilibrium between the textile fibers, with no apparent trend toward substitution of one fiber for another in the more important uses. Then we had the introduction of silk on a large scale. This brought sharp competition with the other fibers on a style basis, during the course of which silk displaced cotton in women's intimate wear and hosiery, and wool to a large degree in women's dress goods. During the time silk was in the process of attaining a leading position in the textile markets, a substitute fiber was being developed which was destined ultimately to drive it practically out of the fabric markets.

This competition of filament rayon with silk, which developed into a death struggle so far as silk was concerned, differed importantly from anything with which the textile industries had previously been familiar.

Prior to the war there were really only two important fibers in textiles, cotton and wool. The price disparity between them and their markedly different physical characteristics sharply limited competition between them so that there was practically an equilibrium in inter-fiber competition. Silk with still different characteristics and on a high price level, competed rather indirectly with them on a use and prestige basis. Filament rayon, however, introduced for the first time into the textile picture in an important way price competition between fibers having the same physical characteristics. The result was ultimately the practical elimination of woven silk fabrics from the textile markets. In addition to this direct competition with silk, rayon competed indirectly with cotton on a use basis, simply appropriating to itself a fairly sizeable part of the market for fine woven cotton goods and the entire market for mohair in linings.

By 1935 it began to look as though a working equilibrium between the textile fibers was again about to develop. The rate of substitution of filament rayon for the other fibers in apparel uses was showing sign of diminishing. Further price reductions in filament rayon might have enabled it to cut somewhat deeper into the use of cotton in women's outerwear, but in many of the markets in which it was being used, filament rayon had already obtained so large a part of the total that some reduction

in the rate of expansion began to appear inevitable. Furthermore lack of consumer acceptance for filament rayon in a fairly wide range of markets, such as men's wear, hindered further expansion there.

However, instead of the industry attaining any such equilibrium, another new fiber, known for a number of years, of course, but not up to then of commercial importance, began to emerge from its obscurity and to cut

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a swath in the textile markets at a rate that has been literally astounding. Within the bare space of two or three years, spun rayon fabrics made from cut rayon staple have been introduced into practically all of the markets where filament rayon has been used in the past and into new markets in which filament rayon never seemed able to get a foothold.

It might seem to some of you unnecessary to take a continuous filament, chop it up into short lengths, and then reassemble them and spin the fiber into a continuous yarn again. There are good reasons, however, why this is desirable. In the first place, it is possible to produce rayon staple fiber much cheaper than filament yarn. Currently the prices are about 24½¢ for rayon staple as compared with around 50¢ for continuous filament yarn. For one thing the extreme care and precision required in filament yarn are not needed for the production of cut staple, and then of course there is not all of the cost of winding, reeling, etc. Other technical factors also contribute to lower cost. This low price of rayon staple, you will note, brings it within much closer range of cotton.

#### Spun To Resemble Other Fibers

Almost equally important, however, is the fact that rayon staple can be spun to resemble practically any of the other fibers: cotton, wool, or flax. It can be mixed with the other fibers to insure greater resemblance to them or used independently by itself. Here then is an intensification of the kind of competition which filament rayon

introduced against silk and which can now be turned against all of the other fibers. It is price competition from a fiber which in woven fabrics has closely similar physical characteristics to all of the other fibers. In the countries of Europe which are attempting to achieve economic self-sufficiency, and in Japan, spun rayon is being made to serve almost exclusively for the other fibers and on the whole, it does fairly well.

The big question of concern to the textile industry today is, then, where spun rayon is going to fit into the picture and how much of a market will ultimately be left for the other fibers. For at least the possibility exists that the synthetic fibers, under continued improvement and gradually lowering costs of production, may even in this country where we have free markets, supplant in large measure the natural fibers.

#### Merchandising Limitations

There are of course limitations of a technical character upon the broad expansion of the market for cut rayon staple. With those we shall not be concerned here. But what are the merchandising limitations upon spun rayon? What are its merchandising advantages? In which markets has spun rayon shown real promise of being able to make substantial headway in competition with the other fibers? (These questions must be answered if at all in terms of spun rayon as we know it today; for with the rapid technological advances being made in this field, it may be only a matter of months before we have not one but a half dozen or more new fibers, some made from a cellulose base and others from other bases, which may radically alter the whole picture so far as cut staple synthetic fibers are concerned.)

To begin with it must be kept in mind that the merchandising function is one of meeting consumer requirements for specific uses. What these requirements will be during the next season can be foretold in only a general way. Usually the consumer himself does not know exactly what he wants until he actually sees it and sometimes not until he has tried it out. Thus the forecasting of consumer requirements, which is unavoidable if goods are to be available when consumers want them, requires creative imagination able to sense what consumers will take.

#### New Fabrics

Consequently in constructing fabrics of a new fiber like spun rayon, where its actual performance under all conditions is still subject to demonstration, there are few standards to go by and a great deal of leeway in possible qualities which producers of differing ideas may try out. It must be expected that there will accordingly be a large number of fabrics on the market of widely varying construction, some of them qualified to meet consumer uses and tests, but with a large number not so qualified. That is to a greater degree than might be desired the situation as it has existed for some little time. A few fabrics of unquestioned merit produced by reputable houses, have gained wide acceptance, but for every one of these there are many more which have created for spun rayon altogether too much consumer ill will. Fortunately, as techniques of fabric production and finishing gradually improve, we can expect an increasing uniformity of ser-

(Continued on Page 38)





## Modern Trends in

# Textile Air Conditioning

By James R. Henderson, Sales Engineer

Parks-Cramer Co.

**F**IRST as to purpose—modern trends in textile air conditioning are aimed primarily at making textile manufacturing more efficient and profitable. To this end, increased production is a major objective. Maintaining proper atmospheric conditions makes fibre and yarn more pliable, tougher, stronger, more capable of manipulation at high speeds, with fewer machine stops.

An objective of equal importance is to obtain high quality in the finished product. Higher quality means easier sales at better prices. Reduction of breaks and imperfections of all sorts tends toward this end. Uniformity of weights, sizes, and other physical characteristics is a further mark of quality, desired and specified by most textile buyers.

Reduction of waste, both visible and invisible, is another important aim in modern methods of conditioning textile mills. Any considerable waste of partly finished or finished product is a serious loss to the mill.

If in securing the foregoing objectives (increased production, better quality, and less waste) atmospheric conditions can be maintained favorable to the workers, a fourth objective is attained. In addition to the humanitarian values for which we all strive, health and comfort of workers make for better personal efficiency, less lost time, less labor turnover, more contentment.

Now, how can these objectives be realized? What atmospheric conditions are controllable? What, in general, are the conditions we wish to maintain?

In this respect modern trends are very specific in comparison with only a few years ago. Of foremost importance with regard to manufacturing is the requirement that humidity be closely controlled. The greatly increased speeds of modern textile machines demand that moisture regain be suited to the process. Humidity—or better, regain condition—must be maintained constantly, regardless of outdoor weather or season. This calls for humidifying systems of high total capacity, engineered

with due consideration for all the variable factors, including heat from motors, machinery, sun, lights, operatives and surrounding rooms. Control of humidification must be automatic by accurate and dependable instruments.

Secondly, the humidity condition must be maintained with reasonable uniformity in all parts of the room. Years ago this requirement was easy to attain, because with lower speeds and less concentration of machinery and motors, less total heat was liberated within each room. Local hot spots were less pronounced. Now, with much more heat to contend with and with more emphasis placed on both humidification and cooling, more humidifying capacity and more ventilation are needed, which together make difficult the uniform distribution of air and moisture. Modern trends in air conditioning aim especially at ironing out these irregularities, eliminating spotty conditions.

Improved equipment for securing the foregoing objectives and results has kept pace with modern trends in textile manufacturing machinery. The days of the watering-can and steam vapor pots are long since past. Modern humidifying systems are of various improved types, each aimed at providing adequate total evaporative and cooling capacity, relatively fine spray for rapid evaporation and rapid distribution of vapor. The various types differ somewhat in relative capacity, distribution, reliability of performance, cost of operation and requirements for cleaning.

### Early Types

Atomizers operated by air under pressure were one of the earlier types. Improved forms designed for economy in the use of air, fixed capacity, fine spray and easy cleaning are still popular with many. Automatic self-cleaning mechanism is a recent addition to this type of humidifier which promises to make it still more widely used. This is a humidifier of relatively small unit capacity which, installed in proper quantity, is applicable to a wide variety of rooms and processes.

The centrifugal humidifier is another early-used type.



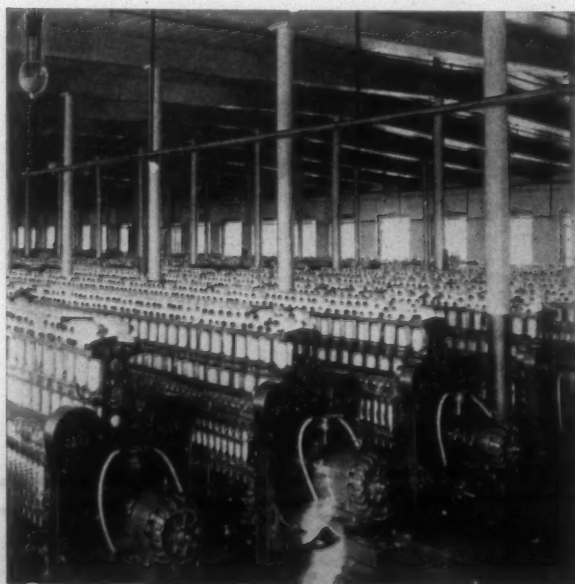
This humidifier has undergone many changes and improvements in shape, size, speed, direction of delivery, fineness of spray, and cleaning requirements. It is a unit of variable capacity. Properly installed and operated, it has much to recommend it.

Another type, which was used widely in the early days of the art, is the so-called spray humidifier. This operated by water under pressure, the high velocity jet impinging on a pin, forming a cone of spray which induced a flow of air to assist evaporation and distribution. The simple spray type has been superseded by various "High Duty" humidifiers which contain a fan for increasing spray capacity, speed of evaporation and radius of distribution. The modern unit is a relatively high capacity unit which features economy of power and reliability of capacity. It is a widely used type, built in various sizes for use especially in moderately high or high-posted hot spinning, twisting and weaving departments.

The central station air washer type of humidifier has long been used in textile mills, especially in silk and rayon plants. Its application to cotton, woolen and worsted mills is likely to increase with the current trend toward improved methods. As in the case of direct humidifier types, designs of central station systems has been gradually perfected over a period of years. The various parts of the station itself, as well as duct work, discharge and exhaust outlets, dampers and regulating mechanism have all been improved over earlier types.

Central station systems have been combined with humidifiers of the direct type as "boosters" with good results in many cases.

Small editions of the central station system, located within the rooms served and with various types of spray generating mechanism, have been used with more or less success in recent years. There is no consistent trend, however, in modern air-conditioning equipment to either smaller or larger units. Details of design, adequacy in total evaporating and cooling capacity and perfection in automatic control appear to be of more importance than size.



### Central Station Equipment

In spite of the fact that it represents a larger capital investment, central station equipment has long been considered the ideal for textile mill air-conditioning, for several reasons. It combines humidifying, cooling or heating, and ventilating equipment in a centralized chamber. It delivers pre-conditioned air to the room, avoiding any possibility of wetting down. It provides positive air circulation. It creates a slight air pressure in the room, causing outward leakage which, in addition to the duct distributing system, provides marked uniformity in room conditions. Properly designed, installed and operated, the central station system can maintain any desired condition of humidity, temperature and air motion—complete air-conditioning. But the trend to central station equipment in mills not requiring refrigeration for de-humidification or extraordinary cooling has not as yet been marked or rapid. Instead, another type of equipment for combining humidifying, cooling or heating, ventilating and air circulating functions has been rapidly gaining in popularity in recent years.

This new equipment was designed originally to supplement any adequate system of direct humidification. It consists of one or more air mixing chambers, located usually in the humidified room which draw outdoor air, or indoor air, or a mixture of the two, and deliver it into the room under a slight pressure. Originally ducts were not used, but in more recent applications, and especially in wide rooms, ducts are connected to the mixing chambers. These distribute the air into the interior of the room to the spots where it is most needed. In hot weather, outdoor air is admitted, which is delivered to the neighborhood of the humidifiers, thus enabling them to operate continuously and provide maximum evaporative cooling. As with the central station system, the slight internal pressure causes air to leak outward, preventing in-leakage of outdoor air along walls, near doors or elevators. Properly designed, installed and operated, this combined system includes all the advantages of the straight central station system. It is adaptable to existing plants as a supplement to present humidification.

The position of superiority long held by central station

Various types of this combined ventilating-humidifying system are in use. The original type has the unique feature of controlling ventilation automatically in accordance with room humidity. In other words, when humidity has been brought to the desired level with ventilation restricted, the automatic humidity regulator gradually admits more and more outdoor air. Being drier than indoor air, this causes humidifiers to keep running at full cooling capacity, provided ventilating capacity is ample. Room temperature is kept as low as is possible with the existing humidifying capacity. By reason of this unique method of regulation, the system has been termed the automatic airchanger.

Previous to the development of the automatic airchanger, attempts to regulate incoming air by manual adjustment of windows or transoms resulted either in too little or too much air change. Uncontrolled ventilating fans caused similar unbalance. When incoming air was insufficient, humidifiers could not operate continuously at full cooling capacity (without undue rise in humidity).

(Continued on Page 36)



# ATTENTION, ALL BELT USERS!

Only ONE cord belt has this patented  
**BALANCED** construction that insures  
a true-running belt



**T**HE truly sensational success of the Goodyear COMPASS Cord transmission belt in solving industry's most difficult belting problems has led to many imitations seeking to capitalize on the magic word "cord."

But what makes the Goodyear COMPASS the truest-running, most nearly stretchless belt on the market—what gives it such exceptionally high flex-life and long wear—is a fully patented method of cord construction no other belt manufacturer can employ!

The Goodyear COMPASS Cord is a modernized flat belt version of the ancient rope drive. With rope drives, as you know, it is necessary to use grooved pulleys to keep the ropes from running

off due to their torque or twisting action.

In the COMPASS this torque is balanced by twisting the ropes, or cords, on opposing sides of the belt axis in opposite directions. Alternate warp threads in the fabric cover are similarly twisted. This patented construction in both body and cover neutralizes any tendency to run off the pulley with an equal pull toward the opposite side, insuring a belt that runs true.

More than this, it permits Goodyear to use larger, stronger cord, eliminating fabric plies entirely in the carcass, and making a thinner, stronger belt with far higher flex-life and longer service-life.

The best proof of this is the remarkable performance of COMPASS belts on industry's hardest drives. From two to five times longer life with practically no stretch is typical. So don't be deceived by the word "cord." The Goodyear COMPASS Cord belt is the only belt in the world with patented balanced cord construction that insures true-running, high flex-life, low stretch and maximum wear. To test COMPASS superiority for yourself, call the nearest Goodyear Mechanical Rubber Goods Distributor.

**BELTS  
MOLDED GOODS  
HOSE  
PACKING**

Made by the makers of  
Goodyear Tires

THE GREATEST NAME

IN RUBBER

# GOODYEAR

## Discussion On

## Carding—Weaving—Spinning

by Piedmont Division S. T. A.

WITH approximately two hundred and fifty members present, the Fall Meeting of the Piedmont Division of the Southern Textile Association was held at the Chamber of Commerce, Charlotte, N. C., on November 19th. The chairman of the Division, B. M. Bowen, superintendent of the Salisbury Cotton Mill, Salisbury, N. C., called the meeting to order and introduced Bruce Cotten, Sales engineer for the Socony-Vacuum Oil Company. Mr. Cotten then presented a moving picture with sound effects, entitled "The Inside Story of Lubrication."



B. M. BOWEN  
Chairman Piedmont Division



J. C. EDWARDS  
who led the spinning discussion

This picture was presented by courtesy of the Socony-Vacuum Oil Company, and was most interesting and instructive, covering the subject of oils and lubrication in great detail, showing the action of oils in bearings, on gears, cylinders, etc. It showed the action of oils in different types of bearings, such as open end, wick fed, drip fed, enclosed, oil pack, etc.

Following the showing of the picture F. H. Trewin, technical assistant manager of the oil company, was introduced, and a stenographic report of the meeting follows:

**F. H. Trewin:** In looking at problems of lubrication you will find that everything is really quite simple. The whole basic problem of bearing lubrication and gear lubrication is the effectiveness of the oil wedge. You saw how the oil wedge was stressed in the picture. In other words, where we have speed and where we have a flooded bearing and the speed is sufficient to carry the oil in and jack up the shaft, we have little trouble with lubricating problems as long as the oil is stable and does not cause the formation of deposits. In textile mills, where we have spindles, for instance, driven at very high speed, there is a bad lubricating problem. The oil is taken by the spindle between the bolster and the spindle blade. Where we have light loads, with small spindles and small packages, as in

the old type of spindle, we want a light-bodied oil of maximum stability, so as to get the lowest power consumption and still have enough body to deaden the vibrations of the spindle and have sufficient stability so it will not form black oil. But with long-draft spinning, with higher speeds and heavier packages, we have increased our loads between the spindle blade and the bolster. In other words, with the larger package we have more eccentricity and have a terrific centrifugal force developing. So we have to go to heavier-bodied oils in order to carry the loads, prevent wear and prevent cupping of the spindle base. The essential is to have as light-bodied an oil as will carry the load.

When we come to the large majority of bearings in a textile plant it is simply an oil-wet surface. We apply oil by hand to the bearings and have to depend primarily simply upon an oil-wet surface. We do not have a flood of oil which will actually jack up the bearing, so we have to depend upon the lubricity in the oil. Sometimes we have to use additional agents in the oil in order to increase the film strength of the lubricant. To illustrate; you probably have seen many bearings that have a pull-up. There we have to introduce oil into the pressure area, where the shaft is pulled up. If the oil film is not formed the bearing overheats. That is a very simple thing to prevent. You have to bring over the point of introduction and fill up the groove in the top of the cap. Don't have a groove in the pressure area of your bearing; it breaks the oil film.

Don't crowd ball bearings with grease; don't force them with grease. They should take grease only about once in six months. If the bearing is crowded with grease the space is lessened, and you get overheating of the bearing.

A cup grease can not properly carry the load. What you need is a good, adhesive lubricant which will not be thrown off but will form a constant, sticky lubricating film. Products especially for the purpose will cut down your lubricating cost.

**Chairman Bowen:** I am sure we have all enjoyed the picture and these remarks by Mr. Trewin. Are there now any questions on lubrication which anyone would like to ask? I think Mr. Trewin will be glad to answer them.

**J. L. Brannan,** Overseer Carding and Spinning, Hermitage Cotton Mills, Camden, S. C.: Do you think a picker beater running 1100 r.p.m., twenty-four hours a day, will run six months?

**Mr. Trewin:** The main feeder bearings should be checked once a week. The carrier bearings will run six months. Don't crowd it with grease. I see no reason

(Continued on Page 18)





FOR 100 YEARS **GILLEATHER**  
HAS CONSISTENTLY PASSED THE 12  
POINT TEST WITH HONORS

For example, unlike leather substitutes, GILLEATHER will not flatten out or flute over the week-end, or even after standing for weeks or months. This is a natural characteristic of good leather, which is one of the most resilient substances known. Furthermore, because this feature means far less ends down when starting up, it is one reason why the **ULTIMATE** cost of GILLEATHER is low.

Because it can answer "yes" to all questions of the 12 point test, GILLEATHER has outlived over 600 leather substitutes that may have surpassed it in one or more respects, but not in **ALL** respects. And a good roller covering **MUST** be able to answer "yes" to all 12 points.

Let us tell you the **COMPLETE** Gilleather story. Write and ask us.

GILL LEATHER COMPANY, SALEM, MASS.

**GILLEATHER** SHEEP and CALF SKIN  
*for TOP ROLLS*

#### THE 12 POINT TEST

1. Does it automatically stop spinning when it makes bad yarn?
2. Does it retain its cushion and resiliency in low temperatures, as over the week-end in winter and as long as it will draft?
3. Does it resist flattening or fluting over the week-end?
4. Does it require a standard diameter arbor, thus eliminating costly changes?
5. Is it impervious to excessive humidity?
6. Does it produce a minimum of eye-brows?
7. Does it eliminate lap-ups as long as it will make good yarn?
8. Does it eliminate cockled yarn, other factors being correct?
9. Does it produce yarn of maximum strength for a given staple, other factors being correct?
10. Does it require a minimum of attention?
11. Does it function properly **ALL** the time until worn out?
12. Has time proved it any better than the 600 odd "improved" roller coverings that have come and gone?

#### *Southern Representatives*

Gastonia, N. C.—W. G. Hammer

Greenville, S. C.—Ralph Gossett

Greenville, S. C.—W. J. Moore

Dallas, Texas—Russell A. Singleton

Griffin, Ga.—Belton C. Plowden

## Discussion On Carding-Spinning-Weaving By Piedmont Division S. T. A.

(Continued from Page 16)

why a picker beater bearing should need grease any more often than an electric motor bearing. If your grease gets hard and you want to replace it, squeeze out that hard grease.

*Chairman Bowen:* Thank you, Mr. Trewin. We are indebted to you and Mr. Cotton for a very interesting part of our program.

The first thing to come before us today is a discussion on carding problems, which will be led by Mr. Brannan, of Camden. He will now take charge.

*Mr. Brannan:* Gentlemen, with no further preliminaries, because our time is rather short, we will take up the first question. That reads: "What are the advantages and disadvantages of air stripping of cards as compared with roller stripping?"

*Chairman Bowen:* We have the air stripper and have the kind in which there is one pipe to each card. Before that we had a pipe that we took around over the floor and hooked up to the card, and with that we could strip only one card at a time. Since that time we have changed to the individual pipe, and we can strip two or three cards at once.

Mr. Bridges, our carder, is here, and I should like to hear from him on that.

*F. W. Bridges,* Overseer Carding, Salisbury Cotton Mill, Salisbury, N. C.: Comparing air strippers to the old method of stripping by hand is just like comparing these times with the horse and buggy days. (The air stripper, of course, has some disadvantages, just as everything else has.) The production is better. We strip with a roller when we grind. Formerly we could strip only one card at a time, and we now strip three at a time. We find that we have much cleaner work and have less damaged clothing by using the air stripper.

*Mr. Brannan:* Do you have any trouble with the selvages of your clothing loading up?

*Mr. Bridges:* No, you will not have that trouble if your card is stripped right. What causes that is that they do not push out to the selvage in stripping the card. It is just the way the stripper is put in and the way the man uses it. If it is properly installed and operated, you will not have that.

*Mr. Brannan:* As I understood, you strip with a roller as you grind?

*Mr. Bridges:* Yes, sir.

*Mr. Brannan:* That is about every fifteen days or something like that?

*Mr. Bridges:* Yes.

*J. C. Edwards,* Supt., Morgan Cotton Mills, Inc., Laurel Hill, N. C.: There is one serious thing you can not get away from, and that is the difference in the price you get for your strips when they are sucked off by a vacuum and blown through a pipe. There is a decided difference in the price you can get for the roller strips as compared with the vacuum strips. People will hardly have the air strippings.

*Chairman Bowen:* Sometimes the reason why the selvages are not stripped is that the clothing is pulled loose at the edge.

*Mr. Inscoc,* The Erwin Cotton Mills Company, Cooleemee, N. C.: We have the same system Mr. Bridges says he has. We strip by air and use the roller every time we grind. At all other times we use the vacuum. About every twelve to fifteen days we strip with the roller. We strip two cards at a time. (I believe he says he strips three.) I think you can strip three all right. It depends upon the type of work you are running and upon the type of cotton.

*S. L. Crolley,* Supt., Hermitage Cotton Mills, Camden, S. S.: I should like to know what difference, if any, these is in the work.

*Chairman Bowen:* It strips better, and your work is cleaner. As to getting less for vacuum strips as compared to roller strips, I think the difference in the price of the yarn and the cloth would justify that.

*L. H. Miller,* Overseer Carding, Jackson Mills No. 3, High Shoals, N. C.: I should like to say that I have had experience with all kinds of stripping, and I find that air stripping is decidedly labor-saving. In other words, I know of a job where they could easily cut out a hand if they had air stripping. That would go some way toward making up for the disadvantage in the price of the strips. So far as the cleanliness and the evenness of the work are concerned, there is a decided difference in favor of the air stripping.

*Mr. Bridges:* You can also clean out from under your cards and have very much better working conditions with air stripping.

*Mr. Brannan:* Do you run that under your cards?

*Mr. Bridges:* Yes, sir. We even clean out the dust pan.

## Blending and Preliminary Processing

*Mr. Brannan:* Question 2: "What methods of blending and preliminary processing give best results on one-process picking?"

*Mr. Inscoc:* We have twenty-bale mixings, and the mix goes through the bale breaker after it passes through the hopper, and then into two vertical openers and then into the picker. We have a one-process picker. We get very good results from that.

*Chairman Bowen:* Mr. Brannan, I have never seen an opening room large enough so that I could lay down enough bales of cotton to get what I consider a good mix.

*Mr. Brannan:* I am like you in that, Mr. Bowen. I have never seen one large enough so that I could have enough bales opened to get what I thought was a proper blend. However, we open twenty bales of cotton at a time. Ours is a comparatively small mill—about 20,000 spindles. We have a twelve-foot feed apron. We feed from twenty bales at a time. It is fed through automatically until it comes out in the lap; it is not touched any more. We have one-process picking, with the three-

(Continued on Page 42)



Thirty Years Ago  
Parts on Draper Looms  
Were Filed and Fitted

As the Looms were being Built—in accordance with the Then  
Prevailing Practice in the Building of Nearly All Textile  
Machinery

Today  
Draper High Speed Looms Are  
Built from Standardized Castings

That Are Finished to Fit Before Leaving the Machine Shop ♦  
That is One Reason Why Your Weavers Can Run More  
Looms ♦ Why Your Fixers Can Care for More Looms ♦ Why  
the Looms Run Faster ♦ Why they Weave More Cloth and  
Better Cloth

You Can Bring Back the  
Weave Room Conditions of 30 Years Ago

With its Less Efficient Looms by Using Repair Parts that are  
Not the Equal of Draper Standardized Parts

Keep Your Looms as Good as New  
With Up-to-date Draper-made Parts

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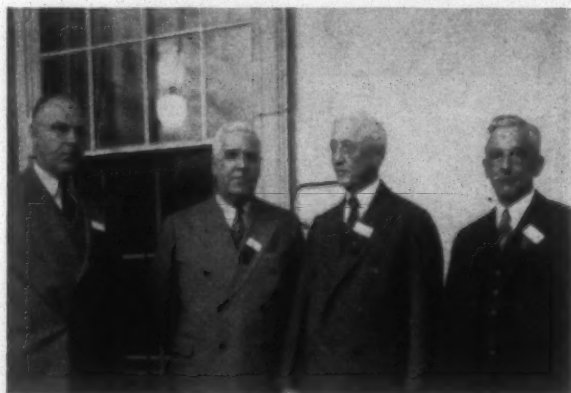
Atlanta Georgia

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Spartanburg S C

# Annual Convention of American Association of Textile Chemists and Colorists

**M**ORE than 700 members and guests attended the Eighteenth Annual Convention of the American Association of Textile Chemists and Colorists at the two-day session at the Biltmore Hotel in Atlanta, Ga., on December 2nd and 3rd. The attendance was composed of dyestuff and chemical manufacturers' represen-



OFFICERS OF THE A. A. T. C. C.

Left to Right—Arthur R. Thompson, Jr., Vice-President; Duncan Ferguson, Vice-President; Alban Eavenson, President; Harold C. Chapin, Secretary.

tatives, chemists, and textile leaders from cotton, wool, silk and rayon weaving mills, and knitting mills.

The convention officially opened at 12:30 P. M. Friday, with a joint luncheon and session held in the Georgian Ball Room of the Hotel, at which Allen Jones, vice-chairman of the Southeastern Section of the Association, presided. During the luncheon music and entertainment was provided by the school orchestra of the Avondale Mills of Alabama.

Mr. Jones introduced the welcoming speaker, Theodore M. Forbes, Executive Secretary of the Cotton Manufacturers' Association of Georgia, following whose welcome address Dr. Marion Luther Brittain, president of the Georgia School of Technology, was introduced by Mr. Jones. Dr. Brittain also welcomed the visiting delegates on behalf of the city of Atlanta and Georgia Tech, and spoke with enthusiasm on the future offered to technical college graduates in the textile fields. He mentioned briefly the interdependence of Southern industry with the textile operations and stated that much of the South's future wealth will accrue from this important industry.

Following Dr. Brittain's remarks, the key speaker of the initial session was presented, Hugh Comer, vice-president and general manager of Avondale Mills of Alabama. The topic of Mr. Comer's address was: "A Mill Executive's Viewpoint on Dyeing and Finishing." Mr.

Comer traced the growth and development of dyeing and finishing processes in the textile industry, and the increasing importance of the textile chemist to every manufacturer of cotton, rayon, and related fabrics. Speaking of the trend toward multiple tones and varied finishes, he said: "It is a fact that the mills have to furnish not only the exact shade and finish demanded by the individual customer, but this shade and finish must be of exact continuity during the life of the contract. The American customer has been educated to expect and demand a wide variety of shades and finishes, and he expects them to be constantly available during the seasonable market. The time element in this process alone demands that the old trial-and-error method be discarded, and it is up to the mills to capitalize upon the latest scientific methods of manufacture, and the best technical experience available to see that they are able to keep abreast of the demands of their market. The chemical department of a mill, with its research and analytical laboratory, is an indispensable part of its organization."

Climaxing the trend of thought opened by Mr. Comer's address, Dr. Alban Eavenson, president of the Association, struck the keynote of the convention by stating that it is the intention and purpose of the American Association of Textile Chemists and Colorists to develop existing processes more highly, discover and perfect through re-



Exhibit presented by Tubize Chatillon, Rome, Ga.

search new uses for our natural wealth, thereby aiding both the manufacturing and the agricultural interests. The luncheon session was then adjourned.



Following adjournment of the luncheon session, the delegates spent some time viewing the exhibits and booths arranged by suppliers, two views of which are shown on these pages. Comments from delegates indicated that this was one of the highlights of the convention, and they expressed appreciation toward those arranging the exhibits.

At the afternoon technical session, Dr. Milton Harris,



Reading Left to Right—R. H. Adams, Callaway Mills, La-Grange, Ga.; Nestor Grotelueschen, Magnet Mills, Clinton, Tenn., Chairman South Central Section; W. E. Hadley, Standard-Coosa-Thatcher Co., Chattanooga, Tenn.; A. R. Thompson, Jr., Ciba Co., Charlotte, N. C., Vice-President, A. A. T. C. C.; W. S. McNab, Quaker City Chemical Co., Knoxville, Tenn., Secretary, South Central Section; T. H. Walker, J. L. Stifel & Sons, Wheeling, W. Va.; Dr. L. A. Olney, President Emeritus, founder of A. A. T. C. C., and head of the Textile Chemistry and Dyeing Department, Lowell Textile Institute, Lowell, Mass.

director of research for Textile Foundation Research Association, lectured on "The Research Program of the Textile Foundation at the National Bureau of Standards." Dr. Harris stated that the aim of the new research program of the Foundation at the Bureau of Standards is to obtain fundamental data on the chemical and physical chemical properties of textile fibers. Work in progress at present is being divided into two separate lines of investigation, cellulose fiber analysis as related to cotton and rayon, and protein fiber research as related to silk and wool. Other investigations now in progress include a study of the acidic and basic properties of silk, wool and cellulose fibers, the polyuronides in cellulose and their



Dr. A. R. Macormac, Professor of Textile Dyeing and Chemistry, Alabama Polytechnic Institute, Auburn, Ala., left, and Sumner H. Williams, Director of Technical Activities, General Dyestuff Corp., Charlotte, N. C.

relation to fiber structure, the effect of oxidizing and reducing agents on wool, a study of the reactive groups in silk, and others. Dr. Harris enlarged upon the importance of these lines of research in their relation to practical processing problems, and indicated that some very worthwhile finding would be forthcoming from their study.

Other talks during this session included a paper by Dr. A. R. Macormac and Dr. C. A. Basore, of the Alabama Polytechnic Institute, on "Increasing the Consumption of Cotton"; "The Testing of Textile Fabrics," by Robert H. Adams, of the Callaway Mills; a brief comparison of the official method for the evaluation of wetting agents with the canvas disk method, Dr. Carl Z. Draves, inventor of the official method; "The Dyeing of Naphthols on Cotton Piece Goods by the Continuous Hot Flue Method," by Sumner H. Williams of the General Dyestuff Corporation, Charlotte, N. C.

Delegates then adjourned to the Annual Business Meeting, at which business affairs of the Association were discussed, and reports received from the various committees and executive officers. It was voted to hold the 1939 convention in Boston, Mass.

In the evening a buffet supper and barbecue was held in the Georgian Room, with P. G. Wear, chairman of the entertainment committee, presiding. Music and entertainment by colored performers was furnished, with com-



Exhibit of the Tennessee Eastman Corporation.

munity singing by the entire assembly. Prizes were then distributed, composed of articles of every description manufactured by members of the association.

Following the Saturday morning technical session, where several papers were read, a special luncheon was held for Sectional officers, at which discussions were confined to planning technical arrangements for future meetings, and it was decided to break down the general groups into more specialized technical sessions, due to increased membership and more highly developed technical fields.

The formal side of the convention was then considered

(Continued on Page 31)



# Problem PAGE

**Devoted to Practical Questions and Answers Submitted by Our Readers**

## Should Spindle Bases Be Cleaned?

Editor:

I have recently seen some discussion reported on the merits of cleaning spindle bases at intervals to remove any sludge, lint, etc. I am interested in this, and would appreciate it if you could give me some information on it, or could work up a discussion among men who have done this and get their results and opinions.

Contributor No. 214.

## Reply

Editor:

I hesitate to give an opinion on the subject you request, because I have been accused by good spinners of being a crank for cleaning out my spindle bases. However, I will give my personal opinion on the matter.

I believe that the cleaning of spindle bases can work a real benefit in some cases. I did in one mill in which I worked, and were I to go to another mill, I would certainly check the bases to determine whether or not they needed cleaning.

Factors that would cause bases to need cleaning are the use of poor grade spindle oil, allowing foreign matter to get into the base, letting a base run dry, etc. If I went into a mill and saw many oil spout covers missing I would assume that the bases needed cleaning, because this would allow foreign material to get into the base.

If there is any sludge or foreign matter in the base, it is cheaper to clean them out and put good oil in than it is to run them as they are. Otherwise there is sure to be excessive drag on the spindle, resulting in power loss.

It is a fairly simple matter to clean them. You just have to remove the spindle and bolster, then the oil can be sucked out of the base with a common tire pump or some similar pump with a tube on it, and this oil pumped into a bucket. The pour a little kerosene into each base, suck that out with the pump, and put in new oil, replace the bolster and spindle, and they are ready to run.

If proper care has been taken of the spindles, good oil used, etc., this should not be necessary except possibly once in maybe ten years.

Contributor No. 215.

## Inspecting Machine Problem

Editor:

Assuming that the quality of goods going over an inspection table is from average to good, how many inspecting machines would be required to handle 275,000 yards of fancy fabrics in forty hours in the cloth room?

How fast should a machine run for an operator to properly inspect the cloth coming over it?

Contributor No. 217.

## Battery Hand Job Assignment

Editor:

We are changing over from a 7-inch to an 8-inch quill on all our filling, and I would like for someone who has done this to give me their experience in changing their battery hand's assignment, if they did so.

I know that the battery hand will have less work to do with the longer quill, or at least I feel sure of it, but I would like to be able to show them just exactly why if I increase their jobs any.

Any assistance you could give me on this would be appreciated.

Contributor No. 218.

## Laps Sticking On Spun Rayon

Editor:

In doing some experimenting with spun rayon we have had a great deal of trouble with the picker laps sticking together. By that I mean that the lap will not unroll in an even sheet at the card.

Could you give us some method by which we could prevent this, or put us in touch with someone who could tell us what to do to stop this? Of course, we are having other troubles, too, but feel that the place to start correcting these troubles is at the start, hence this inquiry.

Contributor No. 219.

## FOR SALE

### 1 Large 117 Spindle Obermeier Package Dyeing Machine—Monel Metal

- Serial No. 8871 Model KA 50
- Complete with pump
- 2 Igels for large machine, 117 packages each, plates and locknuts for same and a few spares
- 1 Handle for moving same
- 2 Carrier trucks for Igel plates and nuts
- 1 Vacuum cover for Igel
- 1 Electric travelling hoist with hooks to fit Igel
- 1 Vacuum system (pump, tank and table)
- 1 Extra four day valve for machine
- 1 Extra gasket for machine
- 12 Extra spindles for Igels

Inspection may be made at New Bedford

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279 Union St., New Bedford, Mass.

## FOR SALE

One 3,000 spindle carded yarn plant for making single yarns from 10's to 20's on cones and tubes with water power good for eight months in the year, and complementary steam plant, complete with village for sufficient help to run plant two shifts, located in the Piedmont section of North Carolina. Address "L. A. J.," care Textile Bulletin.





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DECERESOL\* OT, now rapidly increasing in use in the textile industry because of its remarkable wetting, dispersing and emulsifying properties, is one of the most powerful types of surface active materials available.

Have you tried DECERESOL OT in your dyeing, scouring and finishing processes?

Here are some of the reasons why it cuts costs and increases efficiency:

1. It is a definite chemical compound, not a blend or mixture of materials.
2. It is perfectly stable and will not oxidize, turn rancid or decompose, no matter how long it is kept in warehouse buildings or storage rooms.

3. Its action is so extremely effective that its added cost is more than offset by greatly accelerated operating speeds throughout your mill.

4. It provides an economical solution to difficulties of penetration encountered in bleaching, dyeing and printing.

5. If carried in your drug room stocks it will materially reduce your handling costs.

There are MORE THAN A SCORE OF STEPS in textile production where DECERESOL OT economy and efficiency have been proven in actual practice. Let us show you how and where you can profit by its use. A note will bring you complete information, prices and samples.

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# Personal News

W. F. Twitty has been elected president of the Darlington Manufacturing Company, Darlington, S. C.

Joe Neal is now superintendent of the Sellers Manufacturing Company at Saxapahaw, N. C.

L. M. Pierce is now the secretary of the Cetwick Silk Mills, Asheboro, N. C.

L. A. Yorke, superintendent of construction for the Cannon Mills at Kannapolis, is recovering from a recent operation.

Charles Hampp is now superintendent of the Alamac Hosiery Company, Inc., of Reidsville, N. C., following the resignation of Albert Donst.

James Jackson has been promoted to the superintendency of night spinning at the Springstein Plant of the Springs Cotton Mills Company, Chester, S. C.

W. K. Dana, superintendent of Laurens Cotton Mills, Laurens, S. C., has resigned and plans to make a tour of South America, it is understood.

V. K. Sims, formerly with Callaway Mills at LaGrange, Ga., and for some time associated with Ciba Company, in New York City, is now working at the Charlotte branch of the Ciba Company.

W. J. Still, superintendent of the American Spinning Company, Greenville, S. C., for the past five years, has been named vice-president and manager of the Borden Mills, Kingsport, Tenn., and will assume his new duties January 1st.

Edwin L. Head, Jr., formerly superintendent of night spinning at the Springstein plant of the Springs Cotton Mills, Chester, S. C., has resigned to take a position with the Trion Company, Trion, Ga. Mr. Head is a graduate of the Textile School at Clemson College.

V. P. Lipscomb, superintendent of the Easley Cotton Mills, No. 1, at Easley, S. C., has been transferred to a similar position at the Piedmont Manufacturing Company, Piedmont, S. C.

William H. Brown, assistant treasurer of American Viscose Corporation, has been elected a member of the board of directors, it was made known at the office of the company.

H. O. Lovvorn, 62, one of the charter members and former president of the Mandeville Mills at Carrollton, Ga., died recently. Mr. Lovvorn had retired from the mill business in 1936.

FOR SALE—An E. Leitz-Wetzlar micro-analyzer for cloth with two 10 and two 15 power lenses. Almost new. Address "Micro-Analyzer," care Textile Bulletin.

Alex Gee has become assistant superintendent of the Spartan Mills, Spartanburg, S. C., following the promotion of T. I. Dashiell, who held the position formerly.

Fred W. Symmes has been re-elected president and treasurer of the Union Buffalo Mills, at Union, S. C. All other officers and directors were also re-elected.

Chas. Green, former superintendent of Mills Mill, No. 2, Woodruff, S. C., is now general manager of Laurens Cotton Mill, Laurens, S. C.

Hardy Bryan Branner, treasurer of the Standard Knitting Mills, Knoxville, Tenn., and former mayor of that city, died recently.

W. P. Hazelwood, formerly manager of the Profile Cotton Mills, Jacksonville, Ala., is now connected with the Pickett Cotton Mills, Inc., High Point, N. C.

B. F. Underwood, superintendent of the Piedmont Manufacturing Company, Piedmont, S. C., has been transferred to the superintendency of the Easley Cotton Mills, No. 1, at Easley, S. C.

## N. C. State Chapter of Phi Psi Initiates

The North Carolina State College chapter of Phi Psi, largest and oldest honorary textile fraternity in the nation, recently initiated 13 men.

Those initiated were: Wayland Stuart, Winston-Salem; Eugene Dees, Concord; Paul Wood, Hawthorne, N. J.; Ben Rudisill, Cherryville; H. C. Woodall, Smithfield; Don Hamilton, Charlotte; Thomas Leake, Rockingham; Hal Byrd, Erwin; Percy Merritt, Rosehill; F. L. Misenheimer, Salisbury; Patrick Echerd, Greensboro; Arthur Williams, Greensboro; and John Mauney, Lincolnton.

George V. Hanna, Jr., of Mooresville, is president of the fraternity.

Carl A. Rudisill, treasurer of the Carlton Yarn Mills, Nuway Spinning Company, and the Howell Manufacturing Company, of Cherryville, N. C., is the Democratic nominee for the State Legislature. The death of the representative recently elected caused a special election and Mr. Rudisill's nomination is equivalent to election.

W. S. Nicholson has been elected treasurer and manager of the Darlington Manufacturing Company, at Darlington, S. C., succeeding Alan B. Sibley, who will be transferred to Judson Mills, at Greenville, S. C. Mr. Nicholson will continue to live at Union, S. C., where he is treasurer of Excelsior Mills, but will devote several days each week to managing details of the Darlington plant.



J. Frank Wilson, general manager of the Marshall Field operations at Fieldale, Va., was master of ceremonies at the recent dedication of the new Y. M. C. A. here, a \$35,000 building.

B. D. Gaddy, superintendent of Golden Belt Manufacturing Company, Durham, N. C., has been away from the job on account of illness for several weeks. His duties have been cared for by F. M. Duncan, his assistant.

F. S. Dennis, formerly general superintendent of Granite Falls Manufacturing Company and Granite Cordage Company, is now general superintendent of Sibley-Enterprise Company, Augusta, Ga.

Abel M. Hoffman has been made card room overseer at the Moroweb Cotton Mill, Dallas, N. C., succeeding Plato Jarrell, resigned. Mr. Hoffman had formerly been with the Trenton Cotton Mills, Gastonia.

Hines S. Richardson, formerly second-hand in weaving at the Blue Ridge Division of the Burlington Mills, Alta-Vista, Va., is now connected with S. Slater & Sons, Slater, S. C., in a similar position, first shift.

Carl C. Gray, for the past several years manager of the Atlanta Office of the B. F. Sturtevant Company, and formerly advertising manager of this company, died recently at his home in Houlton, Me., after an illness of several months.

Captain Elliott White Springs, president of Springs Cotton Mills, has underwritten one-half of the \$15,000 needed to secure W. P. A. projects that would provide Lancaster, S. C. with a modern airport and a recreational center.

Dwight Phillips has resigned his position at Appleton Company, Anderson, S. C., and has accepted a position with the Bradshaw Loom Reed Works, Cayce, S. C. Mr. Phillips will be assistant to Howard Bradshaw, owner, and will devote part of his time to traveling.

Thomas I. Dashiell, Clemson graduate of 1932 and formerly with the Pacific Mills at Lyman and the Spartan Mills and Gaffney Manufacturing Company, Gaffney, S. C., has been appointed superintendent of Spartan Mills, Spartanburg, S. C.

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## Twenty Years Ago This Month

The following are excerpts from the Textile Bulletin of December 5th and 12th, 1918.

### DYE MAKERS LOOK TO U. S. FOR PROTECTION

Washington—Dye manufacturers held a conference with the War Industries Board to discuss general conditions in the newly developed industry and to discuss plans which might aid in permanently establishing the dyestuff industry in the United States on a more extensive scale than as yet attained.

### COTTON GOODS MARKETS

New York—Cotton cloth markets are unsettled and weak, there being many more sellers in evidence than buyers. Mills are not pressing the market to any great extent.

Print cloths, 28-inch 64x64, 11½ cents; 64x60s, 11 cents; brown sheetings, 20 cents.

### PERSONALS

M. T. Grimes has resigned as superintendent of the Tallassee, Ala., Mills.

J. E. Harris has accepted the position of superintendent of the Tallassee Mills, Tallassee, Ala.

C. W. Bolick has been promoted from head loom fixer to second hand in night weaving at Carolina Cotton & Woolen Mills Co., Draper, N. C.

Will Still, from Thompson, Ga., is now carder at the mills of L. H. Gilmer Co., Millen, Ga.

H. L. Pruett, of Pelzer, S. C., has accepted a position as overseer of weaving at the Enoree Mills, Enoree, S. C.

Frank E. Heymer has resigned as agent of the Alexander City, Ala., Mills.

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QUALITY

SERVICE

P. H. Hanes, president of the P. H. Hanes Knitting Company, Winston-Salem, N. C., has been elected a director of the National Association of Manufacturers.

Peyton Rowan has been made general manager of the Profile Cotton Mills, Jacksonville, Ala., according to an announcement by Gordon Benedict, president of the company. Mr. Rowan has been connected with the Anniston Yarn Mills, of Anniston, Ala.

Leslie Browder, with a record of 21 years of service, has been made credit manager of the Riverside and Dan River Cotton Mills, with headquarters in New York. Mr. Browder has been located in the New York offices of the organization since 1929. Prior to that time he was in Danville.

E. R. Caldwell, 57, superintendent of the slashing and beaming departments of the Erwin Cotton Mills Company, No. 5 plant, at Erwin, N. C., died at Duke Hospital in Durham, N. C. on December 2nd. He had been connected with the Erwin organization for about 15 years.

## OBITUARY

ARTHUR I. HARVEY

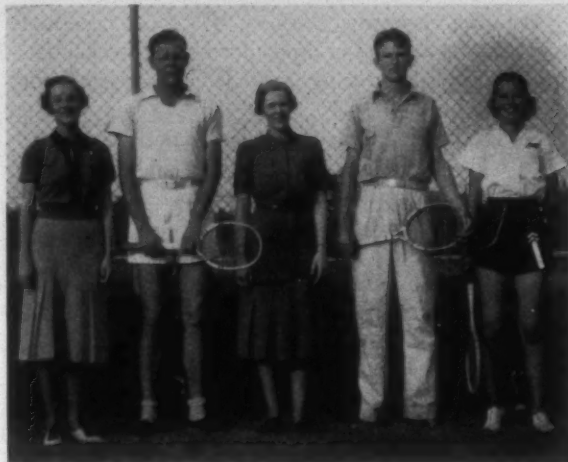
Providence, R. I.—Arthur I. Harvey, one of the oldest men from point of service in the Universal Winding Company, died on December 5th. He had been with the company almost since its organization.

He came to the company about 1901 as assistant to Simon W. Wardwell, inventor and designer of the original Universal Winding Company's machines. Mr. Harvey was intimately connected with the development of the line of machines now made by this concern and had much to do with the building up of the organization.

Holding several positions of trust, including that of works manager for many years, he became associated almost wholly with the Sales Department. In this capacity he had built up a most enviable reputation amongst

the personnel of the entire textile industry of the United States and Canada and his friends were legion.

Mr. Harvey was actively connected with the company at the time of his death, which was unexpected and was a great shock to many of his friends.



TENNIS TOURNAMENT WINNERS AT SILVERTOWN

Above are shown the winners of the tennis tournament staged by Martha Mills, Thomaston, Ga. (Silvertown), this Fall. Reading from left to right are: Martha Parks Culpepper, co-winner in the ladies' doubles; Harry Anderson, winner of men's singles and co-winner in mixed doubles; Louise Gay, winner of ladies' singles and co-winner in ladies' doubles; Chas. Sproull, co-winner in men's doubles; and Clyde Martin, co-winner in mixed doubles.

This is only one of the many outside activities engaged in at this progressive textile community.

### New Booklet By Borne Scrymser

An interesting booklet, in colors, is announced by Borne Scrymser Company, New York, for free distribution. The book gives considerable information relative to the practice of conditioning fibres for the purpose of better manufacturing textiles while processing through the mill. Of interest in the method of moistening, lubricating and dyeing cut rayon staple, all at the same time. By spraying the rayon staple the proper moisture content, oil and dye is accomplished most economically.

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**WARP SIZING  
AND  
FINISHING  
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## DURABLE WATER REPELLENT

*A remarkable new finish that remains repellent  
after many washings and dry cleanings*

**A**N ENTIRELY new type, ZELAN offers many advantages over ordinary waterrepellents—opens up new uses, broadens old ones.

Chemically, ZELAN is radically new. Applied only in the finishing process, ZELAN, a definite chemical compound, combines with fibers to form a durable repellent complex. It does not merely coat them as do the older types of repellents. Thus, ZELAN becomes an integral part of the fiber, remaining through many washings and dry cleanings.

This durability of ZELAN makes practical for the first time a water repellent, spot and stain resistant finish for many garments and furnishings. Because it repels coffee and tea, carbonated beverages and other water solutions, ZELAN will be specified for a wide range of consumer merchandise. It may be applied to cotton, linen, rayon and pure silk. The processing of wool is now being developed. Raincoats, golf jackets, shower curtains, clothing, canvas goods, outdoor furniture, uniforms, gloves, hosiery, tablecloths and a host of



other articles will be made of fabrics treated with ZELAN.

ZELAN improves the appearance, drape and handle of fabrics—gives them a softer, smoother finish that cleans and washes more easily than untreated fabrics. This effect also sur-

vives washing and dry cleaning.

A standard ZELAN label will identify fabrics that are properly treated. Manufacturers having proper equipment for applying ZELAN will be authorized to use the ZELAN label after fabrics have been tested and approved. The Better Fabrics Testing Bureau, laboratory of the National Retail Dry Goods Association, will test samples for water repellency, moisture absorption and durability. Samples taken from continued production will be tested to assure maintenance of high standards.

The cutting-up trade and piece goods buyers are asking for fabrics treated with ZELAN Durable Water Repellent. For complete technical details and methods of application, write one of our branch offices.



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Represented in Canada by Canadian Industries Limited, Box 1260, Montreal, Quebec, and 372 Bay Street, Toronto, Ontario.

DU PONT ALSO manufactures "Aridex"\* water repellent—a superior repellent of the wax emulsion type—particularly satisfactory where extreme durability of the water repellent is not required.

\* Reg. U. S. Pat. Off.

# TEXTILE BULLETIN

Member of

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Published Semi-Monthly By

## CLARK PUBLISHING COMPANY

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David Clark	- - - - -	President and Managing Editor
Junius M. Smith	- - - - -	Vice-President and Business Manager
Ellis Royal	- - - - -	Associate Editor

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

## Francis Gorman the Racketeer

The textile mill employees of the South now have before them ample evidence that labor unionism, as it exists, is nothing more than a racket and that they are the suckers who pay the expenses of the game.

About two years ago Francis J. Gorman, the head of the racket; that is, the president of the United Textile Workers, sold out to John L. Lewis and the CIO.

For a consideration and the promise of a large salary, Francis Gorman turned over the textile employees of the South to the CIO and became inactive. As the result of his sale he draw a salary without doing any work.

Last week a Rhode Island court ruled that in delivering the UTW lock, stock and barrel to the TWOC without first obtaining consent of the membership, Gorman was acting illegally. The court directed also that dues from locals in Rhode Island were wrongfully collected by TWOC, and ordered an accounting.

The court held that when men had bound themselves together in a union, with a written constitution and duly elected officers, they could not be sold like so many cattle nor could the dues they had paid be delivered to the organization to which they had been sold.

Realizing that he would no longer receive a salary from the CIO because the sale he had

made to them had been held illegal, Francis Gorman, who had until that moment been an ardent supporter of the CIO, immediately denounced the policies of the Textile Workers' Organizing Committee (CIO) and announced that he had become a member of the AFL, and would try to lead out of the CIO the members of the TWOC.

Sidney Hillman, head of the textile branch of the CIO promptly denounced Francis Gorman, and said: "If Gorman wants to join the AFL, that is his personal business, but he will not take any textile workers with him."

Mr. Gorman also served notice on Mr. Starr, the treasurer of the United Textile Workers, that "all monies, checks, drafts, express, or postoffice money orders due shall be made payable to the secretary-treasurer, and the same must be sent to my office, which will be in Washington, D. C."

R. R. Lawrence, Southern manager for the CIO, issued a scathing statement attacking Gorman. He declared as "traitorous" Gorman's action in seeking to gain control of the textile unions of the South.

Mr. Lawrence, who denounces Gorman as a traitor, was president of the North Carolina Federation of Labor and turned "traitor" to that organization in order to obtain a fat salary from the CIO, and according to any fair interpretation is entitled to take a seat beside Gorman.

There will undoubtedly be a long and dirty fight, but the cotton mill employees should have sense enough to realize that the contest is not over their welfare but to determine who shall receive the dues paid by suckers.

## Constitutionality of Wage-Hour Law

It appears to us that Elmer F. Andrews, administrator of the Wage-Hour Law, is rapidly changing his former policy and is acquiring an egotism and a czaristic attitude very closely resembling that assumed by Gen. Hugh Johnson during the NRA.

Mr. Andrews is giving out many interviews and he recently stated that he had met no one who believed that the Wage-Hour Law was not constitutional.

The truth is that there are very few persons who believe that the law is constitutional and that the only hope of its advocates is that additional packing of the U. S. Supreme Court may be had prior to the constitutionality test.

North Carolina, South Carolina, Virginia and most of the New England States refused



to ratify the Constitution until the following amendment was inserted:

Powers not delegated to the Congress by the States are reserved to the States and the people thereof.

No power to regulate labor within a State has ever been delegated and when Congress sought to prohibit the interstate shipment of goods made by persons under 14 years of age, the United States Supreme Court said:

Congress can not do by indirection that which it has no power to do directly.

In passing the Wage-Hour Law, Congress admitted that it had no power to pass laws directly regulating the wages and hours of those employed in factories within the several States, because it sought as a subterfuge or indirect method the prohibition of interstate shipments.

No man or women operating looms is engaged in interstate commerce and the effort of Congress to regulate their wages is an effort to "do by indirection that which it admits it has no power to do directly."

There was a method by which the power to regulate wages and hours within the States might have been legally secured and that was by submitting a constitutional amendment to the States and securing the approval of that amendment by three-fourths of them.

The advocates of the amendment knew that the States would not grant any such powers to Congress and sought the underhand and cowardly method of enacting an illegal law and are depending upon packing the U. S. Supreme Court with men who will be willing to vote contrary to the Constitution.

Administrator Andrews said in a recent interview that he expected a court test would follow when he took the initiative by "cracking down" on violators. He expressed hope the case would be one in which the employer "says to hell with the law" so as to permit a direct appeal to the Supreme Court on the constitutional issue.

That statement reminds one very much of some of those issued by Gen. Hugh Johnson when he was at the top of his career under Roosevelt.

No doubt Mr. Andrews would like for the test to be based upon opposition of manufacturers so that it could be presented to the Supreme Court in the light of manufacturers' greed.

Everyone wishes to see good wages paid and we wish to see all wage chiselers eliminated, but there is another side to this Wage-Hour Law and that is the side of the worker who for one reason or another is denied the right to work.

Take the case of a girl who wishes to become a worker in a full-fashioned hosiery mill where the work is light and the pay much more than that which she can secure as clerk in a store.

She knows that she can not make full production or produce good quality goods while learning and is perfectly willing to accept a small wage until such time as she becomes efficient.

The labor unions have said no and Administrator Andrews is expected to say no and the girl is probably to be denied the right to become a full-fashioned hosiery worker.

Such a girl can demand her rights and apply for an injunction against an illegal law as enacted by Congress in an attempt to "do by indirection that which it had no power to do directly."

When an appeal from that injunction reaches the U. S. Supreme Court it would present an entirely different viewpoint from that of the case desired by Administrator Andrews would be based upon an employer saying "to hell with the law."

We can not help thinking of the day when the inevitable collapse will come and when chaos and distress will also come to the citizens of the United States.

It may be delayed and thinking men now say that it probably will not come until 1941, but no man has ever spent beyond his income without eventually coming upon disaster and the same rule applies to Governments.

In years past we have had panics and depressions and in such times mills have managed to give their employees enough work, to enable them to buy food, by operating for short periods at reduced wages.

When the inevitable collapse comes the Wage-Hour Law will prevent any such policy as has existed in the past and thousands of mill operatives will be thrown upon the charity of the Government at a time when industry and business will be in distress and will be paying only a small portion of their normal taxes and when the credit of the Government will be strained to the limit.

The day that the Wage-Hour Law is held constitutional by a packed U. S. Supreme Court is the day that will mark the end of States' Rights in the United States and bring near the end of our form of Government and the establishment of a Dictator.

It may be a Fascist dictator or it may be one allied with Communism, but under neither will Americans ever again enjoy any great measure of that liberty which has been our heritage for more than 150 years.

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## Mill News

GREENVILLE, S. C.—Florence Mills reports for the year to October 1, 1938, a net loss of \$59,201 as against a net profit of \$236,162 for the year ended October 2, 1937.

HILL CITY, GA.—Strain Bros. are erecting a brick building here to house their bedspread manufacturing plant, which is due to begin operations about the first of the year. They will operate 100 machines.

ROME, GA.—Ernest Clark, manager of the Southern Craft Company here, chenille bedspread manufacturers, announced that work is under way on the moving and expansion of the firm, which plans to add about 200 employees in doubling production.

NEW BRAUNFELS, TEX.—New machinery which is being installed in the Lone Star Wool & Mohair Mills include water-softening apparatus, boiler plant equipment, etc., along with a carbonizing system. The improvements and new equipment will represent a cost of \$200,000.

ROCKY MOUNT, N. C.—A. Schottland, Inc., manufacturers of broad silks and rayon fabrics, are reported to have sold their interests in mills in the East, and will move some of the better looms to their Rocky Mount plant. They report good business with orders on hand to run well into the coming year.

ELKIN, N. C.—Chatham Manufacturing Company has been awarded a contract to manufacture 75,000 yards of overcoat material for use in the United States army, it was announced November 28th, the work to start immediately.

The company has been busy for some time on a previous order for 25,000 yards of overcoating for the United States marines. The local plant has been operating 24 hours daily with three shifts on regular duty.

GOLDVILLE, S. C.—Stockholders of Joanna Cotton Mills will meet December 19 at the offices of the company at 3:30, according to F. L. Regnery, secretary, to consider a resolution of the board of directors for a decrease of the authorized capital stock from \$1,500,000 to \$500,000 and of its shares from 15,000 to 5,000 of the par value of \$100 each.

They will also act on a resolution that the firm issue 10-year 7 per cent notes or debentures in the sum of \$500,000.

FORT MILL, S. C.—Contract has been awarded for building the final group of 20 houses for employees of the Fort Mill unit of the Springs Cotton Mills on the outskirts of the town, bringing the total to 100. A like housing project has been completed by the mill at Lancaster, and a third is contemplated for the Chester units of the corporation.



# All Aboard

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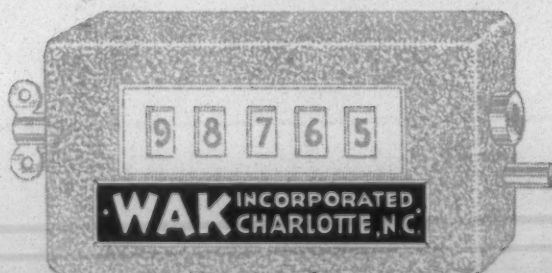
● Charged with static... cotton fibre runs wild in the mill. It needs *control*... and that comes in no more convincing form than the MINEROL treatments that mill men have found so helpful too, at the Cards, in Drawing and Spinning.

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**Rugged - Dependable**  
 Pick Counters  
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"You Can Count on WAK Counters"

## Mill News

GLASGOW, Ky.—The Kentucky Pants Manufacturing Company opened a new plant here a few days ago, with 80 machines in operation and others to be added later.

LINDALE, ALA.—Carleton B. Richmond, treasurer of the West Point Manufacturing Company, reported to stockholders that net sales for the year were \$15,683,846.89, a 30 per cent decrease from the previous fiscal year.

The treasurer reported a net loss for the fiscal year of \$212,470.22, after all charges and reserves. Dividends

CHARLOTTE, N. C.—Powdrell & Alexander, Inc., manufacturers of curtains, have leased the second floor of the Wade Building here, and plan an expansion program to be started about January 1st, according to reports from Earle Powdrell, manager, and H. H. Rapp, treasurer.

The production of curtains will be stepped up to approximately 18,000 yards a week in the new quarters. The parent company is located at Danielson, Conn.

ENGLEWOOD, TENN.—Several carloads of machinery have been moved into the Eureka Cotton Mills in preparation for opening the cloth portion of the mill.

The mill was bought from the Construction Finance Corporation by C. L. Upchurch & Sons, of Athens, Ga. They have moved much of the old machinery. C. B. Walls, foreman, said the mill would start within 60 days.

ROCK HILL, S. C.—The Rock Hill Printing & Finishing Co. has purchased three blocks of property from the Cutter Manufacturing Company to provide space for further expansion.

Walter T. Jenkins, general manager of the plant, said the addition to the plant on part of the new property would provide jobs for perhaps 200 people. The three blocks purchased by the bleachery include 54 houses in the Cutter village and two homes and one lot bought from individuals.

The bleachery has been gradually expanding the ten years it has been in Rock Hill.

SUMMERVILLE, GA.—The North Georgia Properties Company, organized to conduct the plant and properties of the Summerville Cotton Mills here, has been given a certificate of incorporation in the office of the Hamilton County register in Chattanooga, Tenn.

The property of the Summerville Cotton Mills was purchased by a group of Chattanooga bondholders in September. The property consists of large cotton mill, warehouse, cotton gin, employees' homes, oil mill, large spring and waterworks for the town of Summerville.

Incorporators of the North Georgia Properties Company are: Paul S. Mathes, trust officer of the Commercial National Bank; Col. R. H. Kimball, president of the Volunteer State Life Insurance Company, and Morrow Chamberlain, president of the Knoxville Iron Company, all of Chattanooga.



## H & B American Machine Company Acquires Interest in Industrial Machine Corporation

The H & B American Machine Company of Pawtucket, R. I., has recently acquired an interest in the Industrial Machine Corporation at 1450 Broadway, New York, N. Y.

The latter company controls the patents on Federal Throwing Machines for silk and rayon, which were introduced to the trade about two years ago and which have effected some revolutionary economies in their field.

The principal feature of this equipment is said to be that it doubles, twists and cones in one continuous operation, thus making a large saving in labor and eliminating investment in single purpose doubling and coning equipment, in extra motors and belts, and in doubling, twisting and steaming bobbins and racks.

The H & B American Machine Company requires no introduction to the trade, having supplied the textile industry with preparatory, spinning and twisting machinery for a great many years. With its extensive factory space, modern machine tools, wide engineering experience and adequate technical staff, it should simplify manufacturing and service problems on Federal Machines in the future.

Sales headquarters for Federal Machines will be at the New York office of Industrial Machine Corporation as in the past.

## Annual Convention of American Association Of Textile Chemists and Colorists Held in Atlanta

(Continued from Page 19)

adjourned to allow the delegates to take a complimentary tour of Atlanta and vicinity, play golf, or attend the football game.

On Saturday evening a banquet was given at the Atlanta Athletic Club, with more than 800 present. Robert W. Philip presided, and introduced Arthur R. Thompson, Jr., vice-president of the Association, who spoke in tribute to the work and service to the Association of Prof. Louis D. Olney, founder, first President Emeritus, and chairman of the Research Committee of the Association. Mr. Thompson also made presentation on behalf of the Association of five diamond studded pins to as many past presidents: Dr. Olney, Dr. Elvin H. Killheffer, Dr. P. J. Wood, Dr. Robert E. Rose, and Dr. W. H. Cady.

All executive officers of the Association were re-elected, and two new councilors at large were added, P. J. Arient, of the Sayles Finishing Plants, Saylesville, R. I., and Robert S. Wheeler, Crystal Springs Bleachery, Chickamauga, Ga. Present officers, re-elected for another term, are: President, Alban Eavenson, Philadelphia; vice-president, Duncan Ferguson, Shelton, Conn.; vice-president, A. R. Thompson, Jr., Charlotte, N. C.; treasurer, W. R. Moorhouse, Boston, Mass.; secretary, H. C. Chapin, Lowell, Mass.

## YARMOR<sup>★</sup> 302

### *A Dependable Dye Assistant*

Yarmor 302, correctly formulated, has extraordinarily active wetting and penetrating properties. That is why its value has been recognized in cleaning textile fibers.

**And that is why it is an invaluable ingredient for dye assistants.**

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OO-53

# Mill News

SPARTANBURG, S. C.—Checks totaling \$55,000 are being mailed to employee members of Christmas savings clubs at the Inman, Enoree No. 2, Riverdale and Startex Mills here. The clubs are operated through the mills.

BURLINGTON, N. C.—The Glencoe Mills, of this place, has awarded the contract for the construction of a one-story addition. This company is engaged in the manufacture of cotton flannels and coat linings.

DALLAS, N. C.—According to an announcement made by Superintendent R. F. Harris, of the Robinson Yarn Mill, new roving machinery is being installed in the mill. In order that the operations of the mill may continue on a full time schedule with no interruptions, the work of installing the new equipment is going forward slowly.

CENTRAL FALLS, N. C.—At the Central Falls Manufacturing Company, local plant of the Burlington Mills Corporation of Greensboro, N. C., a real estate company from Burlington, N. C., has established offices here for the purpose of selling the dwellings in the local mill village to the operatives. All of the lots have been surveyed and a large number of the homes have already been sold.

BATESBURG, S. C.—A newly-established concern for this section is the Batesburg Print Works, which is located approximately six miles from Batesburg on Lightwood Knot Creek. The new company has constructed a modern mill building, measuring 250 by 200 feet, one story. The most modern type of machinery will constitute the initial machinery setup.

HUNTSVILLE, ALA.—The Merrimac Mills, idle since last December, will resume operations here January 2nd, re-employing about 800 persons, it was announced December 6th.

Plans for reopening the mill followed a conference between officials and union representatives in Birmingham.

CALHOUN, GA.—Work is going forward rapidly here on the construction of a two-story building which will house the Mount Alto Bed Spread Company. The new plant will be fireproof and will provide approximately 30,000 square feet of floor space, housing more than 200 machines, dye plant and laundry.

RALEIGH, N. C.—The proposed plush mill, which was to be erected in the building of the former Caraleigh Mills and known as the Raleigh Mills Company, has been abandoned. The Rhode Island Plush Mills, which were behind the project, had purchased the buildings and had already moved 12 looms, but suffered such severe damage during the recent storm that they were forced to abandon the Raleigh project.

KANNAPOLIS, N. C.—In the various units of the Cannon Mills Company work is going forward on the installation of new spindles of the long draft type. Approximately 205,000 spindles will be installed in a changing over job for the long draft type. When this installation has been completed, it is stated here where a large unit of the company is located, all of the spindles in the units of the Cannon Mills Company will have been equipped with the long draft attachments.

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**MILL STARCH**

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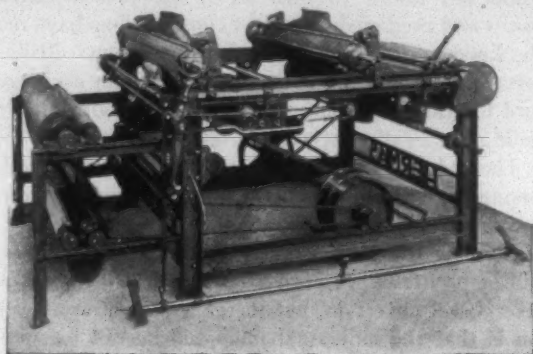
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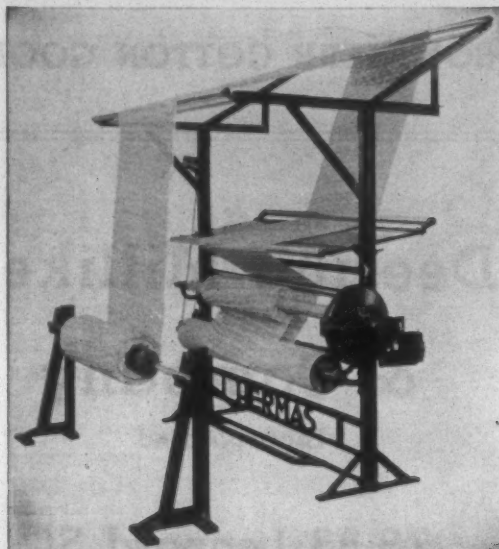
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time and labor sav-  
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**AUTOMATIC FOUR KNIFE HORIZONTAL SHEAR WITH DOUBLE BRUSH UNIT**

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**MODEL GF290 INSPECTING AND MEASURING MACHINE**

Arranged for skylighting. Let-off roll unit behind operator, who can watch the measuring clock, control yardage, inspect the fabric on level or inclined table and also through skylight penetration. ALL FROM A SINGLE POINT.

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New York**

**Cotton Goods Markets**

New York—Cotton gray goods have been in a practically stagnant market recently. Sales have only amounted to less than half of current production, and although there was some evidence during the latter part of the past week that business was due for some sort of a comeback, there has been only little increase.

Those predicting the comeback say that buyers simply could not afford to turn down the present attractive prices and predicted that most constructions have reached the lowest price they are likely to see soon. Mills have certainly reached the point where they can no longer afford to grant any concessions, and it is doubtful if many mills are operating at a profit on present prices.

There has recently been much talk of curtailment among print cloth mills, with some holding the view that this move will be necessary before there can be any hope of building the market up to the point where production will be profitable. Just what form such curtailment would take is still uncertain, but the general consensus of opinion is that the individual mills will curtail to suit their personal requirements. One thing is almost certain, unless there is greatly increased buying following the first of the year there will have to be some curtailments, whether general or scattered.

Over most of the country, advance reports from retailers indicate that holiday business this year is likely to be the best for some years, and many sections report that the buying is of a more practical nature than has been the custom. The custom of establishing Christmas savings accounts has been steadily gaining momentum over a period of years, and there have been large sums released to the lower income groups that will go into the purchasing of many staple articles during the holidays.

It is the opinion of some in the market that continued market unrest in gray goods over a period of several months may result in the liquidation of quite a few mills that have admittedly been operating from hand to mouth for some years. These mills have not been making enough profit to permit them to engage in any sort of a modernization program and are unable to compete with the better equipped and managed mills. They certainly cannot hope to stay in business for long with cloth selling at present prices, and with the assurance of increasing labor costs as a result of the wage and hour law. Whether or not the elimination of these marginal mills will work to the advantage of the more progressive mills is a matter of conjecture.

**J. P. STEVENS & CO., Inc.**

*Selling Agents*

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## Cotton Yarn Markets

Philadelphia—Business in cotton yarns continues to be slightly spotty, with good demand for some counts and a serious lack of interest in others. New buying has subsided to the point where buyers are able to pick up concessions of as much as a half-cent below the published prices. This is not general throughout the market, but is widespread enough to have an unsettling effect on the market.

This condition does not apply to all yarns, but largely to the ordinary quality carded yarns. Some have attempted to attribute this weakening to lower cotton prices, but it is the opinion of most that it is merely a desire on the part of the spinners and suppliers to move stocks of yarn that have been turned down for recent weeks because of price.

A rather unusual situation has developed lately in the trade furnishing knitters with yarns. Knitters have been calling for early delivery on yarns that have been contracted for some time, but which is not scheduled for delivery yet, to such an extent that some mills report that they are pushed for delivery on this rush business. This is believed to be a result of manufacturers having allowed their inventory to become lower than for some time, and then contracting for unexpected business in excess of their yarn supply, particularly underwear manufacturers, who are being blessed with weather favorable to their business this winter.

Calling in of orders at the rate of the past week will mean that new orders will have to be placed within the next few weeks if delivery of present quality yarns is to be maintained.

A situation of this kind is encouraging to those mills who have been finding it necessary to shade prices to obtain new business, and have been reluctant to do this. It is felt that this calling in for early delivery is a result of real needs, and with a good holiday business in prospect and an actuality in most sections, it is felt that there should be quite an improvement in business after the first of the year.

Not all spinners have been willing to meet the one-half cent concessions to obtain business during the past few weeks. Evidently they feel that this is a temporary year-end condition that will be over after the inventory period has passed. Some have expressed the opinion that inventories this year will show a more healthy condition than has been in evidence for some time.

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**WANTED**—Loom Fixer on Crompton & Knowles automatic dobby and jacquard looms. Give experience and full information with application. Address "N," care Textile Bulletin.

**POSITION WANTED** by January 1st as Overhauler or head Loom Fixer. 18 years' experience on all metal Draper looms, understand feelers and Stafford thread cutters. Address "O, or L," care Textile Bulletin.

**WANTED**—Textile Mill Superintendent. Southern cotton mill, about 1,000 employees, spinning, weaving and finishing. Must be experienced colored yarn fabrics for suitings, work clothing, sportswear. Replies held confidential. State experience, age, salary. Address "Tex-Mill," care Textile Bulletin.

**WANTED**—Master Mechanic. To act as general plant engineer in charge of mechanical work, mill and village maintenance. Must be experienced all kinds of mechanical and electrical work as is to be found in a Southern cotton mill with 850 employees. Write fully about age, experience, salary wanted. Replies held confidential. Address "Box 49," care Textile Bulletin.

**WANTED**—Position as cloth room overseer and finisher. 20 years' experience on both white and colored cotton fabrics. Best of references from former employees. Address "ELW," care Textile Bulletin.

**SALESMAN** with four years' cotton mill experience, two years flour milling, twenty years selling supplies to industrial plants, desires to make a change, either inside or outside work; references and sales records furnished; excellent health, refined, educated; owns home and automobile. Address "Spartan," care Textile Bulletin.

**JOB WANTED**—Experienced overseer Carding and Spinning. 7 years combed, carded yarns, rayon and rayon mix. I. C. S. graduate. Consider 2nd hand job. Now employed but job will be discontinued soon. Address "C & S," care Textile Bulletin.

**SPRUCE** pine, silver pine, cedars, hollies, pink, white mt. rhododendron, mt. laurel, mt. hydrangea, pink, yellow, orange, flame mt. azaleas, pink flowering crab-apple, sweet shrub, red, yellow maple, tulip tree, pink, white dogwood, grand-sire graybeard, pink, white deutzia, pink, white, red spirea, Van Houtti spirea, Thumbergi spirea, pink, white, red weigela, coral berry, snowballs, golden bells, purple butterfly bush, bride's wreath, all 2 to 3 ft., 10c each. Nandina, abella, Scotch broom, pink, red, white, white crape myrtle, pink, white, red, purple double altheas, P. G. hydrangeas, all 2 to 3 ft., 25c each. Jonquills, daffodils, white narcissus, dwarf iris, lemon lilies, baby-blue hyacinths, all 10c a dozen. All colors iris 20c a dozen. Mrs. Tea Williams, Marietta, S. C., Rt. 2.

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# Classified Department

**WANTED**—Position as Master Mechanic, steam or electric drive. 12 years' experience. Can change on short or long notice. Interview welcomed. Address "Master Mechanic," care Textile Bulletin.

**WANTED**—Overseer of weaving (not over 40 years of age) by mill making single and double filling ducks and osenaburgs, located west of the Mississippi River. Please give full particulars, with references, and salary desired in letter of application. Address "X. Y. Z.," care Textile Bulletin.

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**FOR SALE**—7 Parks-Cramer electric type humidity regulators. In excellent condition. Low prices. Elliott Metal Works, P. O. Box 21, Spartanburg, S. C.

**WANTED**—Position as overseer of weaving, 15 years' experience as overseer on prints, drill and sheetings. Three years experience on loop selvage. Can give A-1 references. Address "A-1," care Textile Bulletin.

**WANTED**—To contact mill requiring the services of capable supply room clerk. Ten years with last employer. Thoroughly reliable and experienced in mill supplies. Excellent references. Open for immediate offer. Address "Supplies," care Textile Bulletin.

## Special \$1 Dividend Declared by Draper Corp.

Boston, Mass.—Draper Corporation declared a special dividend of \$1 a share on the common stock, in addition to the regular quarterly distribution of 75 cents a share, both payable January 3 to shareholders of record December 3.

The payment of a year-end special dividend is in accordance with the custom of the company. For the past two years the special payment was \$2 a share and three years ago the company paid \$1.60 a share.

## S. C. Cotton Is Of High Grade

Columbia, S. C.—A cross-section of 30,593 bales of South Carolina cotton, classed in Columbia, showed the high average of middling inch staple, it was announced by J. Roy Jones, Commissioner of Agriculture.

Jones said he believed this State's average was as high or higher than any other cotton-producing State could show.

The average was raised, in part,

Jones said, by a great quantity of cotton that turned out to be strict middling.

## Textile Machinery Exports Drop 56% During October

Washington.—Exports of textile machinery declined from \$1,291,253 in October last year to \$565,109 in October this year, a falling off of 56 per cent, according to statistics made public by the Commerce Department.

Decreases reported were: Winders and parts, to \$79,157 from \$188,984; cotton carding machinery to \$95,596 from \$316,359; cotton looms to \$21,582 from \$137,936, and "other" textile machinery to \$115,663 from \$294,505.

October exports of sewing machines decreased 40 per cent, to \$544,394 from \$903,874. Machines for domestic use were valued at \$162,292, as against \$405,155, and those for industrial use at \$252,050 compared with \$294,505. Exports of parts declined to \$129,962 from \$208,242. Shoe machinery exports, other than sewing fell off 28 per cent, \$81,120 compared with \$113,436.

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## Two New Surface Active Agents

Leaflets describing two new surface active chemicals—Surfax and Surfax W. O., with factual data and charts, have just been prepared by E. F. Houghton & Company, 240 W. Somerset St., Philadelphia. Copies are available upon request. These surface active agents are said to possess unusual wetting-out and softening properties. Surfax has also the advantage of high detergent properties.

## Egypt to Protest Tariff on Cotton

Cairo.—The Egyptian government was asked in the chamber of deputies today to consider raising duties on United States goods because of its tariffs on Egyptian cotton.

Finance Minister Mohammed Mahmoud Pasha told the deputies the government was awaiting the result of representatives to Washington before making any decisions.

The United States took 191,000 bales of Egyptian cotton in 1929 before it put on its tax the following year. Egyptian exports to the United States slumped to 34,000 bales in 1937.

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Loop Dryers	

**The W. A. Kennedy Co.**  
Manufacturers Agents  
Charlotte, N. C.

**Modern Trends in Textile Air Conditioning**

(Continued from Page 14)

When incoming air was excessive, room humidity would drop even with humidifiers in continuous operation. Changes in outdoor weather necessitated frequent adjustment in the rate of air change, which requirement only the automatic humidity regulator can detect in hot weather. In cold weather, a temperature regulator suffices most of the time. The automatic airchanger is an aid to uniformity of atmospheric conditions at all times of the year. Humidity is maintained constantly and in all parts of the room. Production, quality and comfort are all improved by this system.

The term "air-conditioning" has been modified in recent years. It was first introduced by Stuart W. Cramer in 1906, when, before the American Association of Cotton Manufacturers at Asheville, N. C., he explained the benefits of atmospheric control and defined air-conditioning as the combined humidifying, air cleaning, heating and ventilating of textile mills, public buildings, offices, schools, auditoriums and the like, under automatic control.

Thus the modern art of air-conditioning actually began in your mills here in the South. Of late years similar advantages have been recognized in other industries and in all sorts of establishments.

But with the broadening of the scope of air conditioning has come a growing sense of its benefits to human beings as well as to machinery and products.

In official quarters air-conditioning gained a new significance and was defined to include dehumidification (requiring actual refrigeration) in summer weather. This definition implies that humidities favorable to manufacturing may be unfavorable to the operatives—an assumption since found to be faulty.

Practical mill men and engineers now take a more conservative viewpoint and have sought to re-establish the trend of air-conditioning on more moderate lines, based on experience and research. In this trend, evaporative cooling and air motion have become conspicuous. The importance of humidity as affecting production and quality is fully recognized. As affecting comfort and health, humidity is given no more than its due share of attention along with temperature and air motion.

Effective temperature is defined as the index of warmth felt by human beings. It is affected by temperature, humidity, air motion, dress and activity of the individual. Under ordinary conditions, effective temperature may be thought of as approximately the mean of the wet and dry bulb temperatures. Air movement lowers effective temperature approximately one degree for each 100 feet per minute under normal room conditions.

Distinction should be made between the zones of comfort which are used in comfort cooling and practical limits for hot textile mills. Here a somewhat higher effective temperature usually is permitted. Some distinction should also be made between comfort and warmth. The effective temperatures usually specified represent comparative feelings of warmth, rather than comfort. For example, 75° F. at 90% humidity, 80° F. at 50%, and 88° F. at 10% all represent 74° e.t. These conditions are equally warm to the human body under normal conditions of exposure. Because of the extremes in humidity, they are not quite equally comfortable. However,



within the normal range of mill humidities, we ordinarily use the words comfort and warmth interchangeably.

Long before effective temperature charts were even thought of, we knew that humidity as well as temperature was a factor in the feeling of warmth.

But the thought went too far and prompted the complaint during hot weather, "It isn't the heat, it's the humidity!" Now many people have come to believe that moderate or high humidity is in itself a cause of serious discomfort.

Effective temperature charts of the American Society of Heating and Ventilating Engineers show that humidity does play a part in comfort, but relatively a very unimportant part. For, lowering temperature 1° F. at constant relative humidity is equivalent to lowering relative humidity more than 5% at constant temperature in summer. Dehumidifying the air from 60% down to 40% at 85° temperature causes no more improvement in effective temperature than lowering the temperature to 82° and keeping the humidity at 60%. Use evaporative cooling to lower temperature to 79° and increase humidity to 79%, and the same improvement in comfort will result.

These examples show that the belief that natural humidity is a serious cause of discomfort—that dehumidification is essential to comfort conditioning—it "all wet."

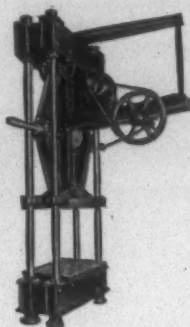
While on this subject, we must not overlook the importance of air motion as a factor in comfort. If you said, "It isn't the heat, it's the lack of air movement," you probably would come nearer to the truth than if you said, "It isn't the heat, it's the humidity." The "dog days" which bother us most are usually when little air is stirring.

A light breeze of only five miles an hour will lower effective temperature about 5°, or as much as a drop in relative humidity of 30% in dog-day weather. We can stand a pretty hot day if a breeze is blowing, but in still air we suffer greatly, other conditions being the same.

Effective temperature data thus throws light on many perplexing comfort problems. It is unfortunate that this data is not better known. The old idea seems to persist that bodily comfort requires a low relative humidity.

For years we have had to contend with misunderstandings on the subject of humidity and health. The old British Cotton Cloth Factories Act which has been copied by some States in this country doubtless contributed. This provides that room relative humidity shall not exceed a certain specified level for the existing room temperature. It implies that humidification is the cause of discomfort. That was true in 1889, when the British Act was first established, because at that time humidification invariably meant the use of live steam. But now humidification in summer means evaporation of unheated water; the more evaporation, the lower the resulting temperature—both dry bulb and effective. When room conditions are oppressive, additional humidification and more air change will provide additional cooling and lower effective temperature. Gentle air movement such as produced by a central station or airchanger system provides still further relief. Legislation pertaining to humidification and air conditioning ought to take these facts into account.

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## Merchandising of Spun Rayon Fabrics

(Continued from Page 12)

viceability in spun rayon fabrics, such as has now been attained in filament rayon.

### Women's Outerwear

At the present time by far the largest proportion of spun rayon is going into women's outerwear—precisely the same market where filament rayon first rose to real volume distribution, and in fact the very field which constitutes the principal market for filament rayon today. This field is split up between the fibers at the present time, according to our calculations, in approximately the following proportion, based upon square yards of woven fabric consumed:

#### Women's Outerwear

Cotton	50%
Filament rayon	30%
Wool	12%
Silk	3%
Spun rayon	5%
Linen	*
	100%

\*— Less than 1%.

It will be noted that cotton is still the dominant fiber in women's outerwear, that cotton dresses, made either in the cutting-up trades or in the home, constitute the largest proportion of the total. That is as might be expected since cotton, the lowest price fiber in that field, has access to the great mass of consumers of small income who cannot afford many garments made of the other fibers. Similarly, the properties of cotton, its sturdy long-wearing qualities and the ease with which it can be cleaned at low cost give it a permanent advantage.

Yet because it is the dominant fiber in this field it is by the same token the most vulnerable to competition from spun rayon, which is now much closer to it in price than any other fiber. Furthermore the types of effects which can be produced with spun rayon—wool types, linen types and an infinite variety of novelties, based either upon yarn manipulation, weave variations or surface decoration, are precisely the types which dominate women's outerwear.

Filament rayon is also going to feel the effects of competition from spun rayon, especially in the Fall selling season, where filament rayon has had the field pretty much to itself. It seems unlikely today that filament rayon can materially improve its relative position in the women's outerwear field, and if anything, it is going to have difficulty holding its own. It would not be at all surprising to see filament rayon decline to no more than 25 per cent of the market in the next few years.

### Children's Outerwear Dominately Cotton

Children's outerwear presents a different type of picture. There cotton dominates the field because of its sturdiness under all conditions, ease and low cost of cleaning, as well as its low price in the fabric:



*Children's Wear*

Cotton .....	85%
Filament rayon .....	5%
Silk .....	2%
Wool .....	8%
	100%

Spun rayon fabrics so far have not demonstrated the same strength for a given construction and weight as is possessed by comparable cotton fabrics. Consequently its acceptance on a large scale in this field is still in question.

**Spun Rayon for Men's Wear**

Turning to men's wear it appears that spun rayon has an opportunity to do a job in this field where, except for neckwear and linings, filament rayon has consistently failed to gain a foothold in the past. The types of effects which spun rayon is capable of producing fit naturally into consumer requirements here. One can include in this the blends with wool in imitation of men's wool suitings. Eventually there may even be all-rayon suiting fabrics which so closely resemble wool suitings that the difference in appearance and possibly wear will be inconsequential. That is for the future, however. Even for the present this field holds a definite opportunity for distinctive spun rayon types as defined above.

It is in sportswear—shirts, slacks, packets and the like, where spun rayon has the greatest opportunity for crashing the gate in the men's field. The coming in of high style, colorful, comfortable and intelligently designed clothing for men's leisure wear represents one of the greatest revolutions in the apparel field of all time.

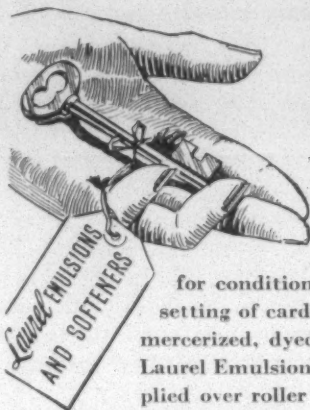
By coincidence this change is occurring at the same time that a new fiber is coming on the scene. So far there are few traditions either in the cutting trades that are making the garments or in the retail sportswear departments as to what fibers, fabrics or even price lines should be used. The field is wide open and consumers have not yet acquired prejudices—they are ready to try almost anything. So far cottons are far in the lead in styling, colors, fabrics and all-around imagination.

**Functionalization in Clothes**

A basic change in consumer habits of wearing clothes can best be described as a trend toward functionalization in clothes—making the design of a garment fit the needs of a specific use.

A trend toward functionalizing of women's apparel has been under way for over twenty years. The modification along functional lines which has taken place in women's intimate wear is probably the most striking expression of its development. Similarly in outerwear the clothes worn by women before the war required drastic changes to suit them to a more active mode of life. Prior to that time there had been little attempt to suit clothes to activity. Dresses followed a single fashion in somewhat the same way that the peasant women of central Europe dress in a fixed costume, the design of which had been handed down from antiquity. Only here, the fashion did change from time to time, although it always seemed to express itself at any given time as a single idea in a single type of dress for whatever purpose.

## YOU CAN HAVE BETTER KNITTING YARNS



### USE THIS KEY TO PROPER REGAIN AND EVEN RUNNING YARNS

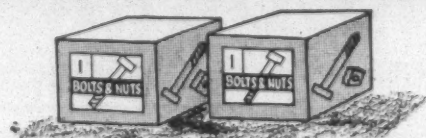
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for conditioning, softening and twist-setting of carded and combed grey yarns, mercerized, dyed and bleached yarns . . . Laurel Emulsions and Softeners, when applied over roller troughs on cone winders, quilling frames, or twisters, will produce even running yarns.

Let us suggest the right Laurel Emulsion or Softener for your purpose . . . and the best method of application. Shall we have our representative call?

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Warehouses: Paterson, N. J.      Chattanooga, Tenn.      Charlotte, N. C.



## Bolts and Nuts to You But More Wind In the Sales

Remember the cracker box and sugar barrel days when most commodities were bought in bulk? Now even carpet tacks, bolts and nuts are sold in individual packages. This is being done to identify a line of products heretofore unbranded, and to produce more sales.

So no matter what product you have, we can suggest ways of novel and distinctive packaging or we can take your present package and, we believe, increase its attractiveness and sales effectiveness. Or if you have several packages, we can *match them*, thereby co-ordinating the style, theme and color scheme and unifying the impressions to be conveyed to the public through a family resemblance.

Designs for our "CO-ORDINATED PACKAGING", or individual packages will be submitted in the way of folding and set-up boxes, cartons, counter and window displays, shipping containers, etc. *When it comes to packaging, come to Old Dominion.*

## OLD DOMINION BOX CO., Inc.

LYNCHBURG, VIRGINIA

Winston-Salem, N. C.  
Martinsville, Va.

Burlington, N. C.  
Charlotte, N. C.

Asheboro, N. C.  
Kinston, N. C.

## Old Dominion Paper Boxes

The first important development was the lounging pajama, which then passed through a transition period as beach pajamas, and has now developed into comfortable man-tailored slacks. The continued application of this functional idea has given women a whole set of clothes appropriately called play clothes, the underlying principle of which is maximum comfort for the occasion.

Shorts and culottes were subsequently developed as the necessary corollary of active sports; and finally came casual clothes—cotton shirts, suits, dresses and the like, usually inappropriate for town but suitable and smart for beach or country wear.

Most of these play clothes were composed of separate items—slacks, shorts, skirts, shirts and their accessories. They became popular because they could be purchased as separate items, one at a time if need be. Prices were low and the combination of various items in an everchanging group of colors made possible an endless variety of play clothes, a vogue attractive to old and young alike.

Men's wear has for many years resisted attempts to change its design, partly, of course, because of the inherent conservatism of men in regard to dress, but also because the lines along which change should occur had not yet been indicated.

Functionalizing of men's apparel has recently been proceeding along two lines; the adaptation of women's style trends to men's wear, as in beach apparel—a high style movement; and the conversion of men's work clothes into

leisure time apparel—a mass movement which has had its principal expression up to the present time in cotton semi-dress slacks. Here we have a striking parallel to what happened in the women's field during the late 20's. Ten or twelve years ago when high style use of cotton for women's wear was being widely sponsored, there was a "dressing-up" of cotton fabrics for women's dresses in an effort to launch these fabrics on a high style basis comparable to silk. Concurrently with this there was a gradual improvement of styling and coloring of cotton dress fabrics for mass consumption. After four or five years of this, "high styling" of cottons had become popularized, while from the other side mass production goods had greatly improved in quality. Eventually the two movements more or less merged in well-styled cottons suitable for general uses. Something like that is happening today in men's wear.

We have not yet spoken of the other two major textile markets—household fabrics and industrial fabrics. What the opportunities for spun rayon are there are uncertain as yet. So far they seem rather limited, although spun rayon blankets, as an example in the household field, have already been successfully produced and distributed. But on the whole the strength and price requirements of these fields seem to indicate that cotton will retain its dominant position here for a long time to come. In fact it is a distinct possibility that ten years or so from now the apparel fields will be largely dominated by the syn-

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NASHUA

NEW HAMPSHIRE

SOUTHERN REPRESENTATIVE—D.C. RAGAN HIGH POINT, N.C.



thetic fibers, while industrial and household uses will constitute the principal markets for cotton.

Paper read at the Fall meeting of the American Society of Mechanical Engineers, Providence, R. I., October 6, 1938.

### Taylor Salt & Chemical Co. Locate in Charlotte

Charlotte, N. C.—Taylor Salt & Chemical Company, with home office in Norfolk, Va., have opened a branch office and warehouse at 717 N. Smith St., Charlotte, N. C.

It is their intention to maintain in Charlotte large stocks of various products which include all alkalis, acids, salt and a general line of heavy chemicals. They are representatives in the South for Pennsylvania Salt Manufacturing Company, Philadelphia, and Beach Soap Company, Lawrence, Mass., and Michigan Alkali Company of New York, as well as several other manufacturers.

They also maintain warehouse stock at High Point, N. C.

### E. A. Roberts Heads Textile Section of Natl. Safety Council

The Textile Section of the National Safety Council elected as chairman E. A. Roberts, American Mutual Liability Company, Atlanta, Ga. E. M. Sally, American Enka Corporation, Enka, N. C., is vice-chairman.

Other officers in the Textile Section are:

Frazer Patterson, W. C. Bradley Interests, Columbus, Ga.; Norman F. Hines, Ludlow Manufacturing & Sales Company, Ludlow, Mass.; Jett M. Potts, West Point Manufacturing Company, West Point, Ga.; C. C. Campbell, Marshall Field & Company, Spray, N. C.

Members at large are: J. E. Berget, Johns-Manville Corporation, Manville, N. J.; B. R. Brown, Columbia Mills, Inc., Chicago; H. R. Cory, Beacon Manufacturing Company, Swannanoa, N. C.; Charles H. Eames, Lowell Textile Institute, Lowell, Mass.; Russell T. Fisher, National Association of Cotton Manufacturers, Boston, Mass.; H. McKelvie, Merrimack Manufacturing Company, Huntsville, Ala.; Gilbert R. Merrill, Lowell Textile Institute, Lowell, Mass.; B. G. Stumberg, Tallassee Mills, Tallassee, Ala.; J. T. Trolinger, North American Rayon Corporation, Elizabethton, Tenn.; and R. B. Wickham, West Point Manufacturing Company, West Point, Ga.

### Cotton Loans \$143,675,186

Washington.—The Commodity Credit Corporation reported it had lent \$29,916,186 on 50,590,711 bushels of wheat through December 1st.

The corporation said it lent \$143,675,555 on 3,111,450 bales of cotton through the same date.

The number of bales on which loans were made, by States, were: Alabama, 245,440; Arizona, 16,170; Arkansas, 591,093; California, 10,248; Georgia, 133,124; Louisiana, 235,473; Mississippi, 469,746; Missouri, 71,494; New Mexico, 23,354; North Carolina, 6,288; Oklahoma, 104,706; South Carolina, 36,970; Tennessee, 227,771; Texas, 939,575; and Virginia, 58.

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BASED ON RESEARCH

One Barrel of *Caro-Gant*  
Replaces Three Barrels  
of Sizing Compound

**Composition**—Caro-Gant is a pure, one-piece Warp Dressing with all objectionable features eliminated. Guaranteed 99.6% active ingredients; contains no water, metallic chlorides or other salts.

**Effectiveness**—Caro-Gant in the size-box sets the standard for clean slashers and looms, quality cloth, and high weave-room production.

**Economy**—Being almost 100% pure, it goes further—one (1) pound of Caro-Gant will replace 2 to 4 pounds of other sizing compounds, at a considerable saving in slashing-costs.

**Other Special Features**—Produces a smooth, strong and flexible yarn. Retains the viscosity of the starch-paste upon standing over night or even over the week-end; mixes readily and uniformly with starch-paste; and is quickly and completely removed in de-sizing.

*Write for a demonstration, which puts you under no obligations.*

Reprints on "Notes on Cotton-Warp Sizing" gladly sent gratis upon request.

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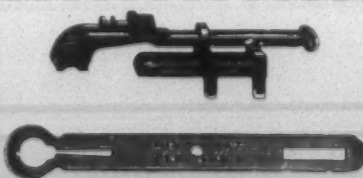


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An impressive record for completing all work on schedule, or ahead of schedule, is another.

Our fitness for executing jobs of any magnitude—anywhere—is recognized by Textile Mills.

When the same mills employ us year after year it indicates unmistakably that every single angle of product and personnel must be 100 per cent.

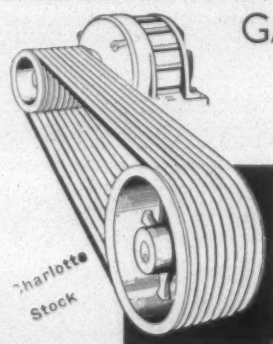
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HARRIS-CORLISS ENGINES

## Discussion On Carding-Spinning-Weaving By Piedmont Division S. T. A.

(Continued from Page 18)

beater system. We have not the side hoppers. I think that is the best system, but in a small plant it is difficult to have them.

*Mr. Bridges:* Ours is hooked up practically like Cooleemee's. As Mr. Bowen said, we never have an opening room or dust pit that is big enough. Cooleemee is the only mill I know of with a big enough dust pit, and they blow the dust out into the river. We use the side hoppers.

*Mr. Edwards:* What do you mean when you speak of a side hopper?

*Mr. Bridges:* That is just a common lattice beater there that drops it on to the long apron. We call it a side hopper because it feeds on to the side of the apron.

*Mr. Miller:* We open forty bales of cotton and run one mixer with twenty bales while the man is opening the cotton for the other mixer. In feeding the cotton, we feed a small amount off each of twenty bales. It goes down into a large hopper and comes back on a lifting apron, which of course mixes it some. Where you are not fortunate enough to have the side hopper, I think that is the next best thing. There is a continuous motion in that large hopper, and then the lifting apron mixes the cotton. You get fair results from that.

*Mr. Crolley:* I should like to ask the gentlemen with all this elaborate equipment what percentage of set-backs they have on their laps.

*Mr. Miller:* I have not an accurate record, but it is very small. I know that. Ours is not a very elaborate set-up; it is one of these made-over one-process pickers. I think we have no right to complain of the set-backs we have.

*Mr. Crolley:* What is your allowance for variation in your laps?

*Mr. Miller:* A half pound each way.

*Mr. Brannan:* Is there anything else on that? If not, I should like to give this test. Our average percentage of set-backs is .32. That is pretty low. We have to get 120 laps every eight hours, and we have been as low as .20; and we have been up, since we got our picker room what we consider modernized, to as high as .60.

*Mr. Miller:* What is your allowance for variation?

*Mr. Brannan:* A quarter pound each way.

*Mr. Bowen:* I should like to ask what the percentage of set-backs is on colored work where you sometimes run two or three or four colors in an eight-hour period.

*Mr. Inscoc:* After we get the weight corrected, we find that the percentage of set-backs is about the same as with white. But you may be running perfectly on one color and then change to another and find three or four pounds of variation. You have to go back then and correct that. After you get the weight corrected, however, it runs about the same as white.

*Mr. Bowen:* That is my experience. You have to regulate the evenness when you change the color.

(Continued in Next Issue)



### Many Southern Cotton Mills Pay as High as North

A recent survey by the Labor Department has shown that many of the South's cotton mills pay as high wages as the average in the North, though the average hourly earnings in the North were 8 cents higher than in the South. This does not mean, however, that the weekly earnings are higher in the North, nor does it mean that the real wages of the Northern worker is as great as that of the Southern worker.

Average hourly earnings in the North were 44.6 cents in August, compared with 50 cents in July, 1937, and in the South the average was 36.6 cents, compared with 39.7 cents in July, 1937.

"Despite the wage differential between North and South," the report continued, "many Southern mills have been paying their workers as much as Northern mills. More than one-sixth of the Southern mills employing more than one-fourth of the workers, averaged more than 40 cents an hour.

"In contrast to these mills, there were others in the South, employing more than 5 per cent of the Southern workers, which paid an average of less than 30 cents an hour. These mills compete with the higher wage mills in both North and South."

### October Cotton Consumption Up

Washington, D. C.—The Census Bureau reported cotton consumed during October totaled 542,778 bales of lint and 72,109 bales of linters, compared with 534,037 and 70,991 during September this year, and 524,188 and 73,193 during October last year.

Cotton on hand October 31 was reported held as follows:

In consuming establishments 1,507,245 bales of lint and 279,145 of linters, compared with 1,107,388 and 263,389 on September 30 this year, and 1,419,039 and 194,043 on October 31 last year.

In public storage and at compresses 15,312,719 bales of lint and 101,422 of linters, compared with 13,013,410 and 97,189 on September 30 this year, and 9,769,861 and 54,135 on October 31 last year.

### Print Firms Merge

Paterson, N. J.—Emanuel Shavick, Paterson attorney, announced that 13 textile printing concerns with assets of \$7,000,000 and employing about 5,000 persons, had merged into one concern to be known as the Allied Textile Printers, Inc.

Shavick said that the step was taken "to seek stabilization in the industry and bring about more economical management of the various plants, 10 of which are in Paterson.

Herman Geller, operator of two shops of the International Dye and Print Works in Paterson and the Perennial Print Works in West Warwick, R. I., was elected president of the new corporation.

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The  
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IN WRENCH  
SERVICE...  
in the  
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space.



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WRENCHES  
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Here's a type of tool in needed sizes that should be in every tool kit... once you've used combination wrenches you'll never want to be without them. Eight long handles—7½" to 12"—and each is two wrenches in one... boxsocket and open end. Closed box-type end grips like a socket wrench... Open End turns nuts fast when work is in the open.

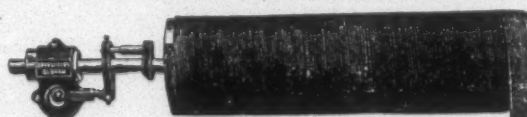
OEX-8 Set—(Illustrated) Sizes ½" to 1" \$9.95  
Snap-on combination wrenches are also built with short handles for close work.

OEX-70 Set—Seven short wrenches 5½" to 6-15/16" long with wrench openings ⅜" to ¾" \$6.25

Complete Warehouse Stocks are Carried  
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DRONSFIELD'S PATENT  
"ATLAS BRAND"  
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"The New Flexible"  
Stocks in  
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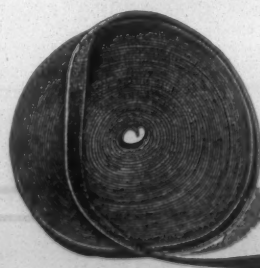
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### Manhattan Rubber Observes 45th Anniversary

The forty-fifth anniversary of the founding and incorporation of the Manhattan Rubber Manufacturing Company, now the Manhattan Rubber Manufacturing Division of Raybestos-Manhattan, Inc., of Passaic, N. J., was observed on October 28th.

The progress of the company, which was incorporated during the first year of the panic which lasted from 1893 to 1897, has been a monument to the farsighted men who conceived its founding. Manhattan's growth has been gradual and conservative until it is now one of the largest manufacturers of mechanical rubber goods.

Frank Cazenove Jones, the first president, was responsible for the financing and planning of the company. He was forced to retire in 1903 because of ill health and was succeeded by Col. Arthur F. Townsend, who served as president for 26 years up to the merger in 1929, which formed Raybestos-Manhattan, Inc. Since 1929, Col. Townsend has been chairman of the Board of Raybestos-Manhattan, Inc. and general manager of the Manhattan Division. Colonel Townsend also holds a prominent position in the rubber industry as the American member of the Advisory Panel of the International Rubber Regulations Committee, which deals with the world's supply of crude rubber.

Three other early executives of the company are still active. They are: F. L. Curtis, assistant general manager of the Manhattan Division and treasurer of Raybestos-Manhattan, Inc., who was manager of the company's original factory office; C. T. Young, factory manager, who was assistant to Mr. Curtis in the factory office, and Miss Gargaret A. Hogan, secretary to Col. Townsend, who was Col. Townsend's secretary in the original main office in New York City and the company's first office employee. Henderson M. Green, now vice-president of Raybestos-Manhattan, Inc., became connected with the company later and has taken a prominent part in conducting its affairs.

Many of Manhattan's employees have grown up with the company. Twenty-four, a few of whom are original employees, started work in the factory or office before the turn of the century and are still active. Nearly 200 have been in the employ of the company for more than 25 years.

Many of the products first manufactured by Manhattan in 1894 have become obsolete with the passing of time and the changing needs of industry. These included solid rubber buggy tires, clincher type bicycle tires, wagon springs, horseshoe pads, and early types of beer bottle stoppers. Other products which were among the varied group manufactured during the first year are extensively used today in a greatly developed and improved form. These products are rubber transmission belt, hose, molded goods, sundries, rubber matting and tiling, rubber covered rolls and abrasive wheels.

Manhattan now employs approximately 3,000 persons in a plant that covers 800,000 square feet of floor space. Auxiliary plants have been established at Whippany, N. J., Neenah, Wis., and North Charleston, S. C.



## R. B. Pitts Scores Governmental Interference

Commenting on a Department of Agriculture statement that the Federal Government might enter the textile business unless manufacturers cut costs in order that low-income families might buy cotton goods at bargain prices, R. B. Pitts, president of Hermitage Cotton Mills, Camden, S. C., recently scored the department for attempting to do to cotton manufacturers what the Egyptians did to the Hebrews in Biblical times.

"The proposal," said Mr. Pitts, "is not only ridiculous, but also a little tragic. Here we have government telling us in one breath to cut costs, and in the next forcing taxes higher through excessive expenditures, forcing wages higher through legislation, and forcing cotton prices higher through regulation.

"The Egyptians did practically the same thing when they forced the Hebrews to make brick without straw, and you will recall that the Hebrews left Egypt. Shall the Federal Government force the cotton mills to leave this country?"

Mr. Pitts based his argument against the proposal on two basic points; first, presentation of Federal figures on cotton mill costs, and second, the impossibility of selecting which were low-income families.

"The Federal Trade Commission, one of the government's own agencies, shows that for each dollar of sales made by combined spinning and weaving companies 26.3c goes for wages; 45.1c for raw material; 24.2c for miscellaneous items; and only 4.4c for profits.

"That's a clear picture of cotton mill costs. As you will see, wages and raw materials make up the major items. None of us wants to cut wages, and the government has virtually fixed the price of cotton."

The manufacturer quoted U. S. Department of Labor figures to show that average hourly earnings of cotton goods workers increased 72 per cent from 1932 through the first six months of 1938 and the average hours worked per week had declined 30 per cent. He pointed to the fact that the national deficit rose at the rate of \$86.00 a second in 1937, and taxes had climbed with the deficit.

To show the difficulty of selecting which were "low-income" families, Mr. Pitts pointed out that if the word were taken of the National Emergency Council, whose "Report on Economic Conditions of the South" was recently presented to the President, the entire population of 13 Southern States, 36,000,000 people, would be favored with cheap clothes.

"The council's report," the cotton manufacturer stated, "even goes so far as to say, on page 63, that 'Southern people need clothes.'"

"But there is one group," Mr. Pitts concluded, "who would probably not need bargain-priced textiles. I refer to the WPA workers of New York City, who for the month ending August 31, 1938, received an average of 72.7c an hour, nearly 10c an hour higher than the average for all manufacturing industries in the country. If the Department of Agriculture does distribute cheap clothes to these men, I suggest that when they get to the head of the line they be given tuxedos and dress suits."

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## CASABLANCAS LONG DRAFTING SYSTEM

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THE MOST WIDELY ADOPTED

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**SPECIAL BRANDS**  
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PARATOL—For Electrolysis Control in  
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HYGROSOL—As Penetrant conditioning Cotton Filling

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## WENTWORTH

### Double Duty Travelers



Reg. U. S. P. O.

manufactured only by the

## NATIONAL Ring Traveler Co.

Providence, R. I.

131 W. First Street, Charlotte, N. C.

Last Longer, Make Stronger Yarn, Run Clear, preserve the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE.

**For  
REPAIRING  
or  
LINING**

**A  
PLASTIC  
LINING  
USED IN  
PLACE OF  
FIRE BRICK**

## LONGER LASTING BOILER FURNACES

"Boiler furnaces lined with CARECO last two to four times longer than those lined with fire brick. Write for quotation."

**CAROLINA REFRACTORIES CO.**  
Hartsville, S. C.

## SOUTHERN DISTRIBUTORS OF CALGON

The Only Complete Water Normalizer

**Chemicals, Oils, Soaps**

**Charlotte Chemical Laboratories**  
Incorporated  
CHARLOTTE, N. C.

## Georgia Launches Drive to Keep Mills in State

Atlanta, Ga.—Beginning the week November 19th, an educational advertising campaign has been launched throughout Georgia by the Georgia Association of Cotton Manufacturers, based on the slogan "Let's Keep the Cotton Mills in Georgia."

T. M. Forbes, executive secretary of the association, stated that the purpose of the movement is to acquaint the public with the part played by the textile industry in the economic development of Georgia. It was pointed out by Mr. Forbes that the growing, manufacturing and marketing of cotton and its products constitutes the largest single enterprise in Georgia.

The aim of the campaign is to bring the facts relative to the cotton situation in Georgia before the people so as to further the mutual interests of the cotton textile industry and the citizens of the State of Georgia as a whole.

Mr. Forbes stated: "During the last cotton year 240,000 Georgia farmers cultivated 2,640,000 acres of cotton, produced 1,490,000 bales of lint cotton with a value of approximately \$80,000,000.

"Fully one-sixth of the State's white population is directly dependent on the cotton textile industry for a living. A substantial majority of our people are dependent on cotton in one way or another. Thus the prosperity of all our citizens is strongly affected by our progress of the cotton industry.

"There are now about 200 textile mills in Georgia with a total of 3,243,000 spindles. These Georgia mills consume about 1,000,000 bales of cotton annually.

"Sixty thousand people are normally employed in these mills, earning about \$45,000,000 per year. This huge sum of money is a tremendous factor in the commercial life of the State. When the mill pay roll stops, the community is paralyzed."

## Painters Don't Like Non-Union Placards

Chicago.—One of those little situations which makes the world turn more merrily for a minute or two has developed here within union ranks.

It came to light when local union sign painters protested vigorously against signs carried by other unions in picket lines. While the signs read "Unfair to organized labor," they had been made by non-union painters!

## October Tire Shipments Largest Since August, '37

New York.—The Rubber Manufacturers' Association, Inc., estimated November 25th that 4,285,233 automobile tires were shipped during October. It was the highest figure since August, 1937, up 8.7 per cent from September and 8.5 per cent above October, 1937.

Production during the month, the association estimated, was 4,275,619, an increase of 7.7 per cent over September and 7.3 per cent over October, 1937. Stocks in the hands of manufacturers on October 31 were estimated at 8,518,867 tires, 1.3 per cent above September 30, but 26.8 per cent below October 31, 1937.



### Crompton & Knowles Shipping Rayon Looms To British Mill

Worcester.—Shipment of 300 rayon looms to one of the largest English textile plants, by Crompton & Knowles Loom Works has started and will continue each week until the order is filled.

An English company in Leigh, Lancashire, some time ago bought a few of the Crompton & Knowles Loom Works rayon looms and installed them along with other rayon looms from all over the world. The company then bought on the basis of results.

The large order was received by the Worcester loom concern a few weeks ago. The Leigh concern will have to pay a 20 per cent duty to get the machines into England.

The looms are designed to produce an extremely high grade of rayon cloth, according to John F. Tinsley, president and general manager of the Crompton & Knowles Loom works.

### Cotton Exports Higher

Washington, D. C.—Exports of cotton from the Carolinas and other Southern States turned upward during October, the textile division of the Bureau of Foreign and Domestic Commerce reported.

Cotton exports from the United States during October totaled 465,000 bales valued at \$23,754,000, compared with 389,000 bales valued at \$20,252,000 in September.

The figure is nevertheless considerably below the October, 1937, total of 799,000 bales with a value of \$44,394,000, the bureau pointed out.

Total exports for the three months, August to October, aggregated 1,054,000 bales valued at \$54,461,000, compared with 1,637,000 bales valued at \$98,155,000 for the corresponding three months of 1937, a decline of 583,000 bales or 35.6 per cent in quantity and \$43,694,000 or 44.5 per cent in value, it was stated.

As compared with the figures for the three months of 1937, smaller shipments were recorded for all the principal European destinations, while larger shipments were shown for Japan and China.

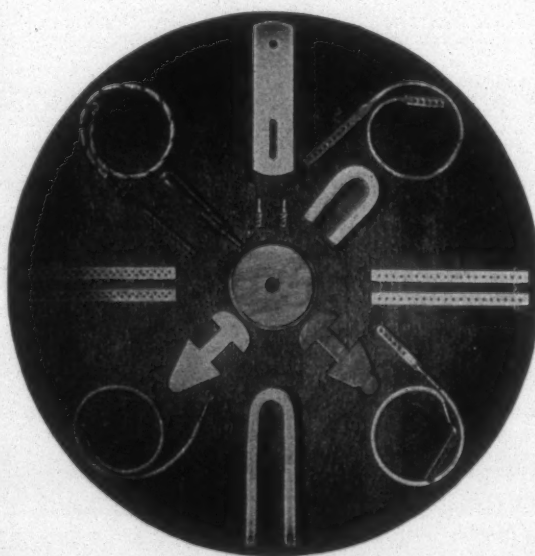
### Cannon Mills Holds Party

Kannapolis, N. C.—Employees of the Cannon Mills Company with service records of 25 years or longer were honored at the second annual "Cannon Employee Party" here December 6th. The event began with a banquet attended by about 200 guests, followed by an address at Cannon High School by Dr. D. W. Daniel, well-known South Carolina speaker.

In addition to the loyal Cannon workers, who were rewarded at the 1937 banquet with Cannon service emblems denoting 25, 35, 45 years of loyal service to the company, a new batch of workers who passed the 25-year service mark since that occasion received the coveted emblems.

This new group of 25-year workers, plus those who received the 35 and 45-year awards last year and members of the 35 and 45-year groups, who got emblems this year, were guests of Charles A. Cannon and others officials of the company at the banquet.

## Rice Dobby Chain Co.



## Millbury Massachusetts

### A Step Ahead



of present standards—that's the ideal steadily maintained by the Victor organization,—for Travelers and service.



When you're up against trouble, and what you need is not a traveler, but the traveler for the job, call a Victor representative. We've been taking care of situations like that for years, and making friends. Try Victor Travelers at our expense. We'll send a trial supply FREE.

### VICTOR RING TRAVELER COMPANY

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Providence, R. I.

P. O. Box 1818

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Atlanta, Ga.  
Tel.—Vernon 2330

173 W. Franklin Ave.  
Gastonia, N. C.  
Tel.—247

# Southern Sources of Supply

## For Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

**ACME STEEL CO., THE**, 2840 Archer Ave., Chicago, Ill. Sou. Sales Offices: Georgia—Atlanta, Acme Steel Co. of Ga., Inc., 603 Stewart Ave.; F. H. Webb, Mgr., 1281 Oxford Rd., N. E.; C. A. Carrell, 2135 Cascade Rd., S. W. North Carolina—Charlotte, F. G. German, 1617 Beverly Drive. South Carolina—Greenville, G. R. Easley, 107 Manly St. Tennessee—Signal Mountain, W. G. Polley, 802 James Blvd. Florida—Orlando, R. N. Sillars, 605 E. Gore Ave. Louisiana—New Orleans, J. C. Brill, 518 Gravier St.

**AKRON BELTING CO.**, Akron, O. Sou. Branches, 903-905 Woodside Bldg., Greenville, S. C.; 390 S. Second St., Memphis, Tenn.

**AMERICAN BLOWER CORP.**, Detroit, Mich. Sou. Offices: Court Square Bldg., Baltimore, Md.; 1211 Commercial Bank Bldg., Charlotte, N. C.; Rooms 716-19 101 Marietta St. Bldg., Atlanta, Ga.; 846 Baronne St., New Orleans, La.; 1005-6 American Bldg., Cincinnati, Ohio; 619 Mercantile Bldg., Dallas, Tex.; 201 Petroleum Bldg., 1314 Texas Ave., Houston, Tex.; 310 Mutual Bldg., Kansas City, Mo.; 620 S. 5th St., Architects & Bldrs. Exhibit Bldg., Louisville, Ky.; 1533 Oliver Bldg., Pittsburgh, Pa.; 7 North 6th St., Richmond, Va.

**AMERICAN CASABLANCAS CORP.**, Johnston Bldg., Charlotte, N. C. Shipping Dept., 1000 W. Morehead St. F. Casablan- cas and J. Casablan- cas, Executives; J. Rabasa, Engineer; Fred P. Brooks, P. O. Box 941, Atlanta, Ga. Representative; Ameri- can Casablan- cas Corp., P. O. Box 917, New Bedford, Mass.

**AMERICAN CYANAMID & CHEMICAL CORP.**, 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, 822 W. More- head St., Charlotte, N. C.; Hugh Puckett, Asst. Sou. Sales Mgr.

**AMERICAN ENKA CORP.**, 271 Church St., New York City. Sou. Rep., R. J. Mebane, Asheville, N. C.

**AMERICAN MOISTENING CO.**, Providence, R. I. Southern plant, Charlotte, N. C.

**AMERICAN PAPER TUBE CO.**, Woonsocket, R. I. Sou. Rep., Ernest F. Culbreath, P. O. Box 11, Charlotte, N. C.

**ARMSTRONG CORK PRODUCTS CO.** (Textile Division). Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. J. V. Ashley.

**ARNOLD, HOFFMAN & CO., Inc.**, Providence, R. I. Frank W. Johnson, Sou. Mgr., Box 1268, Charlotte, N. C. Sou. Reps., Robert E. Buck, Box 904, Greenville, S. C.; Harold T. Buck, 1615 12th St., Columbus, Ga.; W. Chester Cobb, Hotel Russell Eskin, Huntsville, Ala.; D. Floyd Burns, Jr., Box 198, Durham, N. C.

**ASHWORTH BROS., Inc.**, Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S. W., At- lanta, Ga.; Texas Rep., Textile Supply Co., Dallas, Tex.

**ATLANTA HARNESS & REED MFG. CO.**, Atlanta, Ga. Suc- ceeded by Steel Heddle Mfg. Co., Atlanta Division. (See this company's listing.)

**BAHNSON CO., THE**, Winston-Salem, N. C. North and South Carolina Rep., S. C. Stimson, Winston-Salem, N. C. Sou. Rep., I. L. Brown, 886 Drewery St., N. E., Atlanta, Ga. Northern Rep., F. S. Frambach, 703 Embree Crescent, Westfield, N. J. Western Rep., D. D. Smith, 906 W. Lovell St., Kalamazoo, Mich.

**BANCROFT BELTING CO.**, Boston, Mass. Sou. Rep., Ernest F. Culbreath, 602 Commercial Bank Bldg., Charlotte, N. C.; Her- bert Booth, Claridge Manor Apt., Birmingham, Ala.

**BARBER-COLMAN CO.**, Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C.; J. H. Spencer, Mgr.

**BORNE, SCRYMSER CO.**, 17 Battery Place, New York City. Sou. Mgr., H. L. Sleever, P. O. Box 1169, Charlotte, N. C. Sales Reps., W. B. Uhler, 608 Palmetto St., Spartanburg, S. C.; R. C. Young, 1216 Kenilworth Ave., Charlotte, N. C.; John Ferguson, 303 Hill St., LaGrange, Ga.

**BROWN CO., DAVID**, Lawrence, Mass. Sou. Reps., Ralph Gossett, Woodside Bldg., Greenville, S. C.; William J. Moore, Woodside Bldg., Greenville, S. C.; Belton C. Plowden, Griffin, Ga.; Gastonia Mill Supply Co., Gastonia, N. C.; Russell A. Sin- gleton Co., Inc., Dallas, Tex.

**BUTTERWORTH & SONS CO.**, H. W., Philadelphia, Pa. Sou. Rep., J. H. Zahn, Johnston Bldg., Charlotte, N. C.

**CAROLINA REFRACTORIES CO.**, Hartsville, S. C.

**CHARLOTTE CHEMICAL LABORATORIES, Inc.**, Charlotte, N. C.

**CHARLOTTE LEATHER BELTING CO.**, Charlotte, N. C.

**CIBA CO., Inc.**, Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

**CLINTON CO.**, Clinton, Iowa. Luther Knowles, Sou. Agt., Box 127, Telephone 2-2486, Charlotte, N. C. Sou. Reps., Grady Gilbert, Telephone 1132, Concord, N. C.; Clinton Sales Co., Inc.,

W. T. Smith, 2 Morgan Bldg., Greenville, S. C.; Lee Gilbert, Box 481, Tel. 2913, Spartanburg, S. C.; A. C. Boyd, 1071 Bellevue Drive, N. E., Tel. Hemlock 7055, Atlanta, Ga.; Dana H. Alexander (Mill and Paper Starch Div.), Birmingham, Ala. Stocks carried at Carolina Transfer & Storage Co., Charlotte; Consoli- dated Brokerage Co., Greenville, S. C.; Atlanta Service Ware- house, Atlanta.

**CORN PRODUCTS REFINING CO.**, 17 Battery Place, New York City. Corn Products Sales Co., Greenville, S. C., John R. White, Mgr.; Corn Products Sales Co., Montgomery Bldg., Spar- tanburg, S. C., J. Canty Alexander, Asst. Sou. Mgr.; Corn Products Sales Co. (Mill and Paper Starch Div.), Hurt Bldg., Atlanta, Ga., C. G. Stover, Mgr.; Corn Products Sales Co., 824-25 N. C. Bank Bldg., Greensboro, N. C., W. R. Joyner, Mgr.; Corn Products Sales Co., Comer Bldg., Birmingham, Ala., L. H. Kel- ley, Mgr. Stocks carried at convenient points.

**CROMPTON & KNOWLES LOOM WORKS**, Worcester, Mass. Sou. Plant, Charlotte, N. C.

**CUTLER, ROGER W.**, 141 Milk St., Boston, Mass. Sou. Office, Woodside Bldg., Greenville, S. C. Southern Tape Agent: Byrd Miller, Woodside Bldg., Greenville, S. C. Roll Agents: Dixie Roller Shop, Rockingham, N. C.; A. J. Whittemore & Sons, Burlington, N. C.; Dixie Roll & Cot Co., Macon, Ga.; Morrow Roller Shop, Albemarle, N. C.; Greenville Roll & Leather Co., Greenville, S. C. Take Up Roll Agent: M. Bradford Hodges, Box 762, Atlanta, Ga.

**DARY RING TRAVELER CO.**, Taunton, Mass. Sou. Rep., John E. Humphries, P. O. Box 843, Greenville, S. C.; Chas. L. Ashley, P. O. Box 720, Atlanta, Ga.

**DILLARD PAPER CO.**, Greensboro, N. C., Greenville, S. C., Charlotte, N. C.

**DRAKE CORP.**, Norfolk, Va.

**DRAPER CORPORATION**, Hopedale, Mass. Sou. Rep., E. N. Darrin, Vice-Pres.; Sou. Offices and Warehouses, 242 Forsyth St., S. W., Atlanta, Ga.; W. M. Mitchell, Spartanburg, S. C.; Clare H. Draper, Jr.

**DU PONT DE NEMOURS & CO., Inc.**, E. I., Organic Chemi- cals Dept., Dyestuffs and Fine Chemicals Div., Wilmington, Del. John L. Dabbs, Sou. Sales Mgr.; D. C. Newman, Asst. Sou. Sales Mgr.; J. D. Sandridge, Asst. Sou. Sales Mgr.; E. P. Davidson, Asst. Mgr. Technical. Sou. Warehouses, 414 S. Church St., Charlotte, N. C. Reps., C. H. Asbury, H. B. Constable, J. P. Franklin, J. F. Gardner, L. E. Green, M. D. Haney, W. R. Ivey, S. A. Fettus, A. W. Picken, N. R. Vieira, Charlotte Office; J. T. McGregor, Jr., James A. Kidd, 1035 Jefferson Standard Bldg., Greensboro, N. C.; John L. Dabbs, Jr., G. H. Boyd, 804 Provident Bldg., Chattanooga, Tenn.; R. D. Sloan, T. R. Johnson, Green- ville, S. C.; W. F. Crayton, Adam Fisher, Jr., W. A. Howard, Columbus, Ga.; J. A. Franklin, Augusta, Ga.; Tom Taylor, New- man, Ga.

**DU PONT DE NEMOURS & CO.**, E. I., Grasselli Chemicals Dept., Wilmington, Del. Howard J. Smith, Dist. Sales Mgr., W. F. Hummel, Salesman, 414 S. Church St., Charlotte, N. C.

**DU PONT DE NEMOURS & CO.**, E. I., Rayon Div., F. H. Coker, Dist. Sales Mgr., 414 S. Church St., Charlotte, N. C. Ace- tate Div., J. J. Cook, Dist. Sales Mgr., 414 S. Church St., Char- lotte, N. C.

**DU PONT DE NEMOURS & CO., Inc.**, E. I., The R. & H. Chemicals Dept. Main Office, Wilmington, Del.; Charlotte Office, 414 S. Church St., LeRoy Kennette, District Sales Mgr. Reps., J. L. Moore, Technical Man, Penn R. Lindsay, Salesman, 414 S. Church St.; John C. Robertson, 1220 Pasadena Ave., Atlanta, Ga., Technical Man; R. C. Cochran, 356 Pine Tree Drive, At- lanta, Ga., Salesman; W. F. Murphy, 1106 19th Ave., Nashville, Tenn., Ceramic Salesman.

**EATON, PAUL B.**, 213 Johnston Bldg., Charlotte, N. C.

**ENGINEERING SALES CO.**, 217 Builders' Bldg., Charlotte, N. C., S. R. and V. G. Brookshire.

**FOSTER MACHINE CO.**, Westfield, Mass. Sou. Office, 813 Johnston Bldg., Charlotte, N. C.

**FRANKLIN MACHINE CO.**, 44 Cross St., Providence, R. I.

**FRANKLIN PROCESS CO.**, Providence, R. I. Sou. Plants, Greenville, S. C., and Chattanooga, Tenn.

**FREDERICK IRON & STEEL CO., THE**, Frederick, Md. Sou. Reps., R. L. Selby, Piedmont Engineering Co., Charlotte, N. C.; Boiler Equipment Service Co., Atlanta, Ga.

**GENERAL COAL CO.**, 1215 Johnston Bldg., Charlotte, N. C., C. L. Rowe, Sou. Sales Mgr. Reps., J. W. Lassiter, F. W. Rea- gan, E. H. Chapman, Charlotte, N. C.; J. C. Borden, Grace American Bldg., Richmond, Va.; D. H. R. Wigg, Wainwright Bldg., Norfolk, Va.; W. A. Counts, Law & Commerce Bldg., Bluefield, W. Va.; H. C. Moshell, Peoples Bank Bldg., Charles- ton, S. C.; P. W. Black, Greenville, S. C.; H. G. Thompson, Bristol, Tenn.



**GENERAL DYESTUFF CORP.**, 435 Hudson St., New York City. Sou. Office and Warehouse, 1101 S. Blvd., Charlotte, N. C., B. A. Stigen, Mgr.

**GENERAL ELECTRIC CO.**, Schenectady, N. Y. Sou. Sales Offices and Warehouses, Atlanta, Ga., E. H. Ginn, Dist. Mgr.; Charleston, W. Va., W. L. Alston, Mgr.; Charlotte, N. C., E. P. Coles, Mgr.; Dallas, Tex., L. T. Blaisdell, Dist. Mgr.; Houston, Tex., E. M. Wise, W. O'Hara, Mgrs.; Oklahoma City, Okla., F. D. Hathway, B. F. Dunlap, Mgrs.; Sou. Sales Offices, Birmingham, Ala., R. T. Brooke, Mgr.; Chattanooga, Tenn., W. O. McKinney, Mgr.; Ft. Worth, Tex., A. H. Keen, Mgr.; Knoxville, Tenn., A. B. Cox, Mgr.; Louisville, Ky., E. B. Myrick, Mgr.; Memphis, Tenn., G. O. McFarlane, Mgr.; Nashville, Tenn., J. H. Barksdale, Mgr.; New Orleans, La., B. Willard, Mgr.; Richmond, Va., J. W. Hicklin, Mgr.; San Antonio, Tex., I. A. Uhr, Mgr.; Sou. Service Shops, Atlanta, Ga.; W. J. Seibert, Mgr.; Dallas, Tex., W. F. Kaston, Mgr.; Houston, Tex., F. C. Bunker, Mgr.

**GENERAL ELECTRIC VAPOR LAMP CO.**, Hoboken, N. J. Sou. Reps., Frank E. Keener, 187 Spring St., N. W., Atlanta, Ga.; C. N. Knapp, Commercial Bank Bldg., Charlotte, N. C.

**GILL LEATHER CO.**, Salem, Mass. Sou. Reps., Gastonia, N. C., W. G. Hamner; Greenville, S. C., W. J. Moore, Ralph Gossett; Dallas, Tex., Russell A. Singleton Co., Inc.; Griffin, Ga., Belton C. Plowden.

**GOODYEAR TIRE & RUBBER CO., Inc., THE**, Akron, O. Sou. Offices and Reps., W. C. Killick, 209-11 E. 7th St., Charlotte, N. C.; J. L. Sturges, 141 N. Myrtle Ave., Jacksonville, Fla.; C. O. Roome, 600-6 N. Carrollton Ave., New Orleans, La.; J. H. Neiberding, 1128 Union Ave., Memphis, Tenn.; W. R. Burtie, 3rd and Guthrie, Louisville, Ky.; R. G. Abbott, Allen and Broad Sts., Richmond, Va.; E. A. Filley and M. W. Sledge, 214 Spring St., N. W., Atlanta, Ga.; J. L. Sinclair, 700 S. 21st St., Birmingham, Ala.; Atlanta Belting Co., Atlanta, Ga.; Battey Machinery Co., Rome, Ga.; Bluefield Supply Co., Bluefield, W. Va.; Gastonia Mill Supply Co., Gastonia, N. C.; Knoxville Belting & Supply Co., Knoxville, Tenn.; Laurel Mach. & Fdry. Co., Laurel, Miss.; Orlando Armature Works, Orlando, Fla.; McComb Supply Co., Harlan, Ky., and Jellico, Tenn.; Mills & Lupton Supply Co., Chattanooga, Tenn.; Mississippi Fdry. & Mach. Co., Jackson, Miss.; Moore-Handley Hdw. Co., Birmingham, Ala.; Morgan's, Inc., Savannah, Ga.; Mulberry Supply Co., Mulberry, Fla.; C. T. Patterson Co., Inc., New Orleans, La.; Pensacola Tool & Supply Corp., Pensacola, Fla.; L. W. Philips, Tampa, Fla.; Fye-Barker Supply Co., Atlanta, Ga.; Bailey Milam Hdw. Co., Miami, Fla.; Sullivan Hdw. Co., Anderson, S. C.; Superior Iron Works & Supply Co., Shreveport, La.; Taylor Iron Works & Supply Co., Macon, Ga.; Textile Mill Supply Co., Charlotte, N. C.; Tidewater Supply Co., Norfolk, Va.; Columbia, S. C., Asheville, N. C.; W. Reynolds Barker, 1634 Laurel Ave., Knoxville, Tenn.; S. Donald Portson, Augusta, Ga.

**GREENVILLE BELTING CO.**, Greenville, S. C.

**GULF OIL CORPORATION OF PA.**, Successor to **GULF REFINING CO.**, Pittsburgh, Pa. Division Sales Offices: Atlanta, Ga., A. M. Wright, Greenville, S. C.; T. C. Scaffie, Spartanburg, S. C.; J. H. Hooten, Gastonia, N. C.; R. G. Burkhalter, Charlotte, N. C.; G. P. King, Jr., Augusta, Ga.; Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Louisville, Ky.; Toledo, O.

**HART PRODUCTS CORP.**, 1440 Broadway, New York City. Sou. Mgr., Charles C. Clark, Box 274, Spartanburg, S. C. Sales Reps., Tally W. Piper, Box 544, Fairfax, Ala.; W. R. Sargent, Greenville, S. C.

**H & B AMERICAN MACHINE CO.**, Pawtucket, R. I. Sou. Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga.; J. C. Martin, Agt.; Johnston Bldg., Charlotte, N. C.; Elmer J. McVey, Mgr.; Fritz Swefel, Fred Dickinson, Jim Miller, sales and service representatives.

**HERCULES POWDER COMPANY**, Wilmington, Del. Distributors—Burkart-Schier Chemical Co., Chattanooga, Tenn.; Hercules Powder Co., Paper Makers Chemical Div., Atlanta, Ga. Warehouses—American Storage and Warehouse Co., 505-513 Cedar St., Charlotte, N. C.; Textile Warehouse Co., 511-513 Rhett St., Greenville, S. C.; South Atlanta Bonded Warehouse Corp., Washington and Macon Sts., Greensboro, N. C.

**HERMAS MACHINE CO.**, Hawthorne, N. J. Sou. Rep., Carolina Specialty Co., P. O. Box 520, Charlotte, N. C.

**HOLBROOK RAWHIDE CO.**, Providence, R. I. Sou. Distributors, Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., and Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Sullivan Hdw. Co., Anderson, S. C.; Montgomery & Crawford, Spartanburg, S. C.; Carolina Supply Co., Greenville, S. C.; Fulton Supply Co., Atlanta, Ga.; Southern Belting Co., Atlanta, Ga.; Greenville Textile Mill Supply Co., Greenville, S. C., and Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; Waters-Garland Co., Louisville, Ky.

**HOUGHTON & CO., E. F.**, 240 W. Somerset St., Philadelphia, Pa. Sou. Sales Mgr., W. H. Brinkley, 1301 W. Morehead St., Charlotte, N. C. Sou. Reps., C. L. Elgert, 1306 Court Square Bldg., Baltimore, Md.; S. P. Schwoyer, 507 N. Main St., High Point, N. C.; D. O. Wylie, 1301 W. Morehead St., Charlotte, N. C.; J. J. Reilly, 2856 Peachtree Rd., Atlanta, Ga. (Apt. 45); H. F. Graul, 605 Idlewild Circle, Birmingham, Ala.; V. C. Shadden, 1821 Auburndale Ave., Chattanooga, Tenn.; J. W. Byrnes, 333 St. Charles St., New Orleans, La.; G. J. Reese, 402 S. Independence St., Sapulpa, Okla.

**HOUGHTON WOOL CO.**, 253 Summer St., Boston, Mass. Sou. Rep., Jas. E. Taylor, P. O. Box 2084, Phone 3-3692, Charlotte, N. C.

**HOWARD BROS. MFG. CO.**, Worcester, Mass. Sou. Office and Plant, 244 Forsyth St., S. W., Atlanta, Ga.; Guy L. Melchor, Mgr. S. W. Rep., Russell A. Singleton Co., Inc., Mall Route 5, Dallas, Tex.; J. Floyd Childs, 244 Forsyth St., S. W., Atlanta, Ga.

**HUBINGER CO., THE**, Keokuk, Iowa. Southeastern Sales Rep., Chester M. Goodyear, 1284 Piedmont Ave., N. E., Atlanta, Ga. Warehouse stocks at Greenville, S. C., Winston-Salem, N. C., Atlanta, Ga.

**KENNEDY CO., W. A.**, 814 S. Tryon St., Charlotte, N. C. W. A. Kennedy, Pres.

**JACOBS MFG. CO., E. H.**, Danielson, Conn. Sou. Rep., W. Irving Bullard, Pres., Charlotte, N. C. Mgr. Sou. Service Dept., S. B. Henderson, Greer, S. C.; Dan B. Griffin, Southern Sales Rep., E. H. Jacobs Mfg. Co. Sou. Distributors, Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., and Charlotte Supply Co., Charlotte, N. C.; Gastonia Mill Supply Co., Gastonia, N. C.; Shelby Supply Co., Shelby, N. C.; Sullivan Hdw. Co., Anderson, S. C.; Montgomery & Crawford, Spartanburg, S. C.; Industrial Supply Co., Clinton, S. C.; Carolina Supply Co., Greenville, S. C.; Fulton Supply Co., Atlanta, Ga.; Southern Belting Co., Atlanta, Ga.; Greenville Textile Mill Supply Co., Greenville, S. C., and Atlanta, Ga.; Young & Vann Supply Co., Birmingham, Ala.; Waters-Garland Co., Louisville, Ky.

**JACKSON LUMBER CO.**, Lockhart, Ala.

**KEEVER STARCH CO.**, Columbus, O. Sou. Office, 1200 Woodside Bldg., Greenville, S. C.; Daniel H. Wallace, Sou. Agt. Sou. Warehouses, Greenville, S. C., Charlotte, N. C. Sou. Reps., Claude H. Iler, P. O. Box 1383, Greenville, S. C.; Luke J. Castle, 515 N. Church St., Charlotte, N. C.; F. M. Wallace, Homewood, Ala.

**LAUREL SOAP MFG. CO., Inc.**, 2607 E. Tioga St., Philadelphia, Pa. Sou. Rep., A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.

**THE MERROW MACHINE CO.**, 8 Laurel St., Hartford, Conn. E. W. Hollister, P. O. Box 721, Spartanburg, S. C.; R. B. Moreland, P. O. Box 895, Atlanta, Ga.

**MOCCASIN BUSHING CO.**, Chattanooga, Tenn. Sou. Jobbers: Odell Mill Supply Co., Greensboro, N. C.; Shelby Supply Co., Shelby, N. C.; Greenville Textile Supply Co., Greenville, S. C.; M. C. Thurston Co., Richmond, Va.; Ferebee-Johnson Co., Lynchburg, Va.; Knoxville Belting Co., Knoxville, Tenn.; Miss. Foundry & Mch. Co., Jackson, Miss.; Corinth Machine Co., Corinth, Miss.; Industrial Supplies Co., LaGrange, Ga.; Phillips Hdw. & Supply Co., Columbus, Ga.; Macon Supply Co., Macon, Ga.; Owen-Richards Co., Birmingham, Ala.; Matthews-Morse Sales Co., 909 S. Mint St., Charlotte, N. C.

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**U. S. RING TRAVELER CO.**, 159 Aborn St., Providence, R. I. Sou. Reps., William W. Vaughan, P. O. Box 792, Greenville, S. C.; Oliver B. Land, P. O. Box 158, Athens, Ga.; Torrence L. Maynard, P. O. Box 456, Belmont, N. C.

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**VICTOR RING TRAVELER CO.**, Providence, R. I., with Sou. Office and Stock Room at 173 W. Franklin Ave., P. O. Box 842, Gastonia, N. C. Also stock room in charge of B. F. Barnes, Jr., Mgr., 1733 Inverness Ave., N. E., Atlanta, Ga.

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**WOLF, JACQUES & CO.**, Passiac, N. J. Sou. Reps., C. R. Bruning, 306 S. Chapman St., Greensboro, N. C.; G. W. Searell, Jefferson Apts., 501 E. 5th St., Chattanooga, Tenn.

## Fidelity Machine Co. Handles New Swiss Machinery

Fidelity Machine Company, maker of knitting and braiding machines, has put a new machine on the market for the manufacture of knitted yarns. The principle of the machine was invented and developed in Switzerland by the Sinfra Corporation. An American company, the American Sinfra Corporation, has given Fidelity the exclusive rights to manufacture and merchandise the new machine.

Thomas Monroe, who has charge of the promotional development of the new machine, says that already it has had an excellent reception. Purchases have been made by one of the largest novelty yarn manufacturers, he added, as well as by an outstanding men's wear fabric manufacturer and one of the largest carpet manufacturers.

The machine is said to be so flexible that it is capable of handling the finest silk yarns and then with a few minor adjustments, the heaviest carpet yarns. Also a core yarn can be used and other yarns knit around it. The advantages of the knitted yarn are claimed to be greater bulk, greater elasticity and the absolute control of colors to form a pattern in knitted or woven fabric.

The knitted yarn when finished is said to give one-third more bulk than a twisted yarn made from the same component yarns. The yarn is not heavier in weight, having the same yards per pound, but it is one-third thicker or loftier.

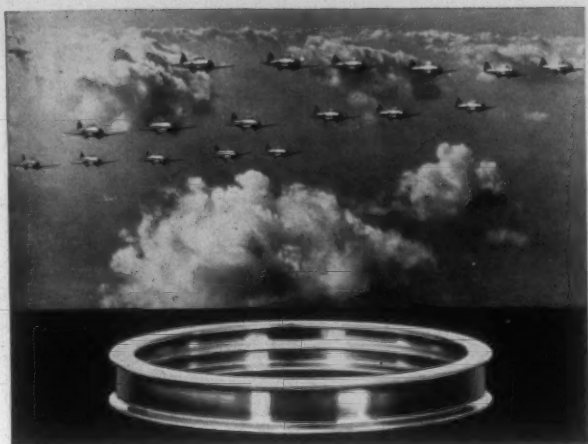
The added elasticity is in direct proportion to the difference in elasticity between a woven fabric and a knit fabric. When different colored component yarns are used, almost any pattern on the yarn can be developed. With, for instance, a green and black yarn, a resultant yarn can be produced which shows black and green evenly spaced along the length of the yarn every quarter of an inch.

The use of knitted yarn in, for instance, the manufacture of overcoatings, it is said, will permit the weaver to make the cloth narrower and then he will not have to full it so much. This will conserve material, make a cloth the same weight per yard and at the same time produce a cloth just as warm as the more heavily fulled cloth and of a more pleasing appearance.

The same principle has been used by Fidelity for some time in the manufacture of machinery for insulating electrical wires, to take the place of braided insulation. In this field, knitted insulation can be applied to wires 10 times faster than by braiding and there is much less noise in the insulating room.

The owners of the patents consider that they have produced a revolutionary machine that will find its way into all branches of the textile manufacturing business.





## Lining up for ACTION!

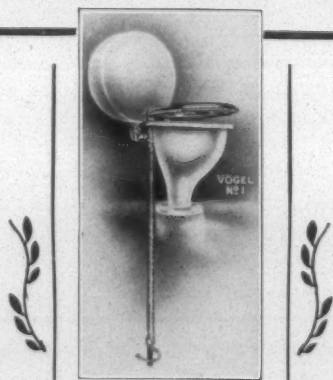
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This torch that we speak of has burned continuously since 1786, when Pliny Earle first engaged in the manufacture of hand cards. In 1790 this same Pliny Earle also produced the first machine card clothing made in America. His business prospered and descended in the Earle family until 1890 when it became a part of the American Card Clothing Company.

This latter company "passed the torch" to us in 1905, when we purchased the business. We were well qualified to carry the torch as our own experience began prior to 1870 when George and Elijah Ashworth obtained their first patent in England. Thus our customers have benefited not only from our own knowledge and experience but also from the traditions and experience of our predecessors dating back 151 years.

It is our constant aim to "carry the torch" with credit, by earning the confidence of our customers. We would welcome an opportunity to earn yours.

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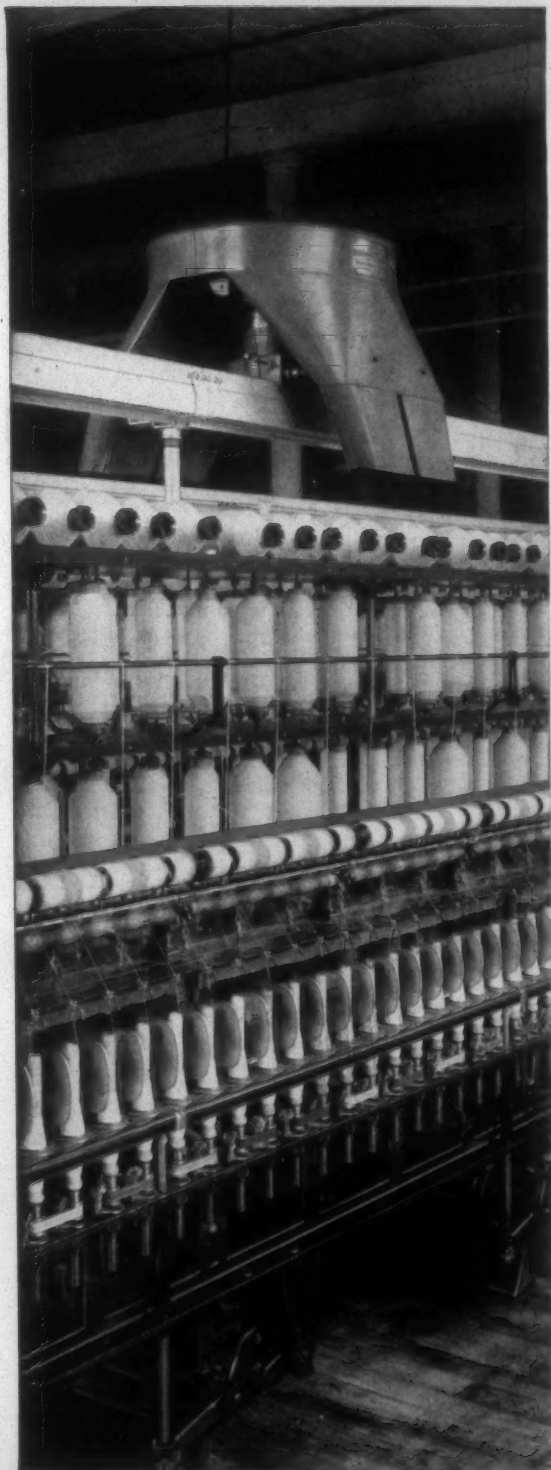
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